Documented Categorical Exclusion (DCE) for *SH-100 over Arkansas River at the Muskogee/Sequoyah County Line* *Muskogee* County *J3-2100(004)PM, JP 32100(04)*

Existing Conditions and Purpose and Need for the Action

The existing SH-100 bridge (NBI#17611) has a clear roadway width of 28 feet consisting of two 11-foot-wide driving lanes and 3-foot-wide outside shoulders. The bridge has a sufficiency rating of 66.7 and is a substandard width. The bridge is identified as a type listed in the ACHP Program Comment for post-1945 concrete and steel bridges and was not documented. The 2020 Annual Average Daily Traffic (AADT) is 3,700 vehicles per day (vpd) with a future 20-year AADT (2040) of 5,000 vpd. This project is in the Department's Current 8-year Construction Program. The project limits extend approximately 500' east and west of the existing bridge to encompass the structure and approaches.

The existing bridge was constructed in 1969 and has reached the end of its intended design life. The purpose for this project is to preserve transportation continuity by providing a safe crossing over the Arkansas River. The project is needed to correct the deteriorating structural conditions and substandard functional aspects of the existing bridge. This project is in the Department's Current 8 Year Construction Program and the State Transportation Improvement Plan. The project termini are approximately 500 feet east of the existing bridge to approximately 500 feet west of the existing bridge. The NEPA study area is 150 feet to the right and left of center, 1,500 feet east of the bridge and 2,000 feet west of the bridge.

Description of Proposed Action

The proposed improvement consists of replacing the existing bridge with 40 ft. wide clear roadway bridge on the existing alignment. The roadway will consist of two 12 ft. wide driving lanes and 8 ft. wide outside shoulders. Modern 42" tall railing will be incorporated to increase safety. The overall length of the replacement bridge will be similar to the existing, but the number of spans will be reduced using longer spans and fewer piers in the river. The vertical alignment will be lowered by reducing the bridge height and optimizing the clearance of the bridge over the navigation channel. No additional right-of-way is required. The roadway will be closed during construction, with a signed detour of approximately 15 miles using I-40 to SH-64. The estimated closure duration is 24 months; incentives will be utilized to reduce the closure time.

Public Involvement & Agency Solicitations

A virtual public open house for the project was held online between February 12 and February 26, 2021. Notice of the virtual public open house was sent by regular mail to elected officials, property owners, and utility owners in the study area. The mailing included a pamphlet with an overview of the project and background information, as well as a comment form and self-addressed stamped envelope. The pamphlets were also delivered using Every Door Direct Mail service to 1,609 addresses covering the areas

surrounding the towns of Webbers Falls in Muskogee County and Gore in Sequoyah County.

Solicitation letters including notification of the virtual open house were mailed to the appropriate state and federal resource agencies and Native American Tribes.

Ten people signed in on the website; however, sign-in was not required. According to the website analytics, 318 unique visitors viewed the website over the 15-day period. A total of 20 written comments/questions were received during the virtual public open house, including one agency comment, nine comments submitted via the website, eight mailed written comments, and two emailed comments that were duplicates of two mailed comments. The majority of the public comments were in support of the project most commonly citing safety as an improvement. The concerns focused on how access and travel patterns would be impacted during construction, namely community impacts since Webbers Falls does not have many of the services that are found in Gore (grocery stores, healthcare services, etc). Several commenters expressed concern that the construction phase would be too long.

The Oklahoma Department of Environmental Quality (ODEQ) determined that no adverse environmental impacts under their jurisdiction are anticipated. A complete summary of the virtual open house is provided in the Public Involvement Summary attached to this document.

Social, Economic and Environmental Impacts & Agency Coordination

Right of Way and Relocations
The project does not involve any additional right-of-way, nor any relocations.

Environmental Justice
ODOT completed a Community Impact Assessment for this project; a relocation plan was not needed.
The bridge over the Arkansas River would be closed during the construction of the project, which is expected to take two years. The bridge connects two towns: Webbers Falls in Muskogee County and Gore in Sequoyah County. As a result of the bridge closure, people would have to take a detour route which follows SH-100 south to I-40 then north on SH-10 and US-64. Total travel time between Webbers Falls and Gore using the alternative route on I-40 is estimated at 15 minutes (10 miles one-way), which is an additional 10 minutes compared to travel time using the SH-100 bridge.

Motorists have a viable alternative route to/from Webbers Falls/Gore using I-40 during the construction of the proposed project. Motorists would retain bridge functionality after completion of the project.

Two readily identifiable groups of minority persons exist within the study area in the town of Gore. Both groups reside in census tract 302.02 in Sequoyah County. One of the groups consists of census blocks 2079 (minority population: 20) and 2108 (minority population: 22) in block group 2 and the other consists of blocks 3052 (minority population: 30), 3063 (minority population: 20), and 3081 (minority population: 35) in block group 3 and three blocks in block group 2 with total minority populations that are heavily composed by American Indians and Alaskan Natives: 2092 (80% American Indian and Alaskan Native), 2107 (100% American Indian and Alaskan Native), 2109 (91% American Indian and Alaskan Native).

American Indian and Alaskan Natives compose the largest individual minority groups in the readily identifiable groups. There are indications that people with disabilities live in the study area, as evidenced by ramps on homes in the study area. Other vulnerable populations live in the study area, such as elderly populations and children.

A few public comments suggest that people walk across the bridge to Gore to access facilities and services, such as grocery stores, health services, and places of employment. During construction, these transportation methods would not be available, and existing raised shoulders that are used by pedestrians would not be replaced by a sidewalk. There would be no pedestrian access during construction and post-construction; it is assumed those who currently use the bridge would likely resume using it at their own risk once the project is complete. Census data from the area indicates that a very low percentage (1.0 - 2.0%) of people walk or bike to their place of employment.

Community cohesion would be altered between the two towns during construction of this project; however, community cohesion within each town would not be affected. The towns would temporarily not have direct access to one another. Webbers Falls would not have convenient direct access for all modes of travel to services and facilities found in Gore, including a full-service grocery store, health services, and places of employment during the construction of the project. There are no full-service grocery stores or health services within Webbers Falls, but there is a convenience store (Love's Truck Stop), which has basic grocery items, located at the intersection of SH-100 and I-40, approximately 2 miles south of town. However, a detour route using I-40 would maintain access between the two communities but would add approximately 10 minutes of driving time one-way. Based on comments received during the public meeting, there are people who walk across the existing bridge. However, what appears to be (and is used as) a sidewalk is functionally a shoulder. The proposed project does not include bike or pedestrian facilities. It is possible that some Webbers Falls residents may travel to the nearby communities of Warner or Vian for services and facilities instead of Gore. It is worth noting that both communities are located in rural eastern Oklahoma, and residents are accustomed to driving to neighboring communities, sometimes as far as Checotah, OK (25 miles west), or Sallisaw, OK (25 miles east) for more specialized or full services. Access and community cohesion would be restored after completion of the proposed project.

Temporary access and travel pattern changes are anticipated to affect both EJ and non-EJ communities since everyone would have to utilize the detour to reach their destinations. However, it is likely that EJ populations would be affected by these impacts to a greater extent if they are low-income individuals. One of the public commenters who referred to themselves as low-income mentioned that the cost of gas for transportation during the construction period would be a hardship. Low-income EJ populations may find it more difficult to pay for additional gas to access amenities than someone who is not low-income. During construction only, the project would likely have a disproportionate effect on particularly the low-income EJ population in Gore due to increased travel miles and time for travel to Webbers Falls or other destinations usually accessed via the SH-100 bridge. Additionally, all block groups in the study area show a presence of households in poverty. There could also be disproportionate impacts to low-income populations in Webbers Falls whose primary or only mode of travel is cycling or walking as they would not be able to cycle or walk safely to Gore or other destinations accessed via the SH-100 bridge while it is closed. Impacts would be temporary while the bridge is closed during construction.

It is likely that community cohesion in the study area would temporarily suffer as a result of the proposed project due to extended travel times between Webbers Falls and Gore, particularly for residents of Webbers Falls, who rely on services such as healthcare and grocery stores in Gore. It is possible that people within the community would participate less in activities across the two towns.

The impacts to the low-income EJ population would be disproportionate, but not disproportionately high because they would be temporary (during construction). Further, the readily identifiable minority populations and the identified low-income population are located in Gore and would not lose access to essential goods and services in the town.

No mitigation is proposed, or likely feasible; however, incentives for early completion will be

implemented to help alleviate the burden the additional travel time would have on low-income populations. Several design options are being discussed amongst ODOT and external agencies to determine the feasibility of decreasing the bridge's closure time. All measures to lessen the closure time will be implemented to the agency's ability.

A Virtual Public Open House was hosted online for a 15-day period to provide project information, a project presentation, project maps, and offer the public an opportunity to comment. Notification packages were sent to properties within the study area, state and federal resource agencies, and Native American Tribes. Every door direct mail service was used to target a broader audience (1609 mailings) within both counties. Due to the low number of LEP persons living within the study area block groups (1%), assistance in a language other than English was not requested or required.

Based on the analysis above, the proposed project will not cause disproportionately high and adverse effects on any minority or low-income populations in accordance with the provisions of E.O. 12898 and FHWA Order 6640.23. No further Environmental Justice analysis is required.

Cultural Resources
ODOT, with concurrence from the State Historic Preservation Office and the State Archaeologist, determined the proposed project will have no effect on historic properties. ODOT Cultural Resources Program 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, and Wichita & Affiliated Tribes.

Section 4(f) and Section 6(f) Involvement
The action does not involve the use of public recreational or historic properties protected by Section 4(f) of the U.S. Department of Transportation Act of 1966 (U.S. DOT Act) (49 U.S.C. 303) nor properties that have been developed using Land and Water Conservation Funds Act (LWCFA) of 1965(16 USC 4601-4 et seq) protected under Section 6(f) of the Act.

Waters and Wetlands
The action involves work in the Arkansas River, exhibiting the characteristics of a jurisdictional waterway. The project may also involve minor work in a potentially jurisdictional wetland. The proposed construction activities will be evaluated to ensure that the appropriate Clean Water Act Section 404 permit application is made.

Threatened & Endangered Species, Bald Eagles, and Migratory Birds
A biological field review was performed for the referenced project. ODOT on behalf of FHWA has determined that the project, as proposed, will have no effect on the federally-listed Neosha Mucket, Red Knot and Rabittsfoot Mussel. The project, as proposed, is unlikely to adversely affect the Whooping Crane, Gray Bat, Ozark Big-eared Bat, and Piping Plover. The U.S. Fish and Wildlife Service (USFWS) has concurred with the Department's findings. The project, as proposed, is likely to adversely affect the American Burying Beetle, Indiana Bat and Nothern Long-eared Bat. The appropriate effect determination for the Indiana Bat has been made under the Programmatic BA & BO, the appropriate effect determination for the ABB is covered in the BO for the final 4(d) rule, and the final effect determination for the Northern Long-eared Bat is covered under the Programmatic BA and BO. The USFWS has concurred with ODOT's effects determinations based on ODOT's and FHWA's implementation of the USFWS biological opinions for the three species referenced above. Prior to Right-of-Way submittal, plan notes for mitigation and/or avoidance of American Burying Beetle, gray bat, Indiana bat, Ozark big-eared bat and the northern long-eared bat, Whooping Crane, Interior Least Tern, migratory birds and Bald Eagle will be added to the project plans under "Environmental Mitigation Notes" per policy Directive C-201-2D(2).

Floodplains
The project is located in a regulatory floodway. However, the proposed project will not require a flood map revision as determined by the appropriate state or local authority.

Farmlands
The action occurs within existing right-of-way; therefore, the project will not affect any farmlands.

Hazardous Waste
An Initial Site Assessment (ISA) was performed and determined there are no known hazardous materials sites or previous land uses with potential for hazardous materials remains within the proposed action area. No further investigations or plan notes are necessary.

Temporary Construction Impacts
The roadway will be closed to through traffic during construction. The Department has notified all local residential and commercial property owners, schools, post offices, nearby towns, State Troopers, and emergency services providers. The proposed detour is 10 miles long and the anticipated duration of closure is 24 months. Information regarding the road closure and detour were included in the Virtual Open House materials sent to stakeholders, property owners, and utility owners and can be found in the Public Involvement Section of the Appendices. The social and economic impacts of the road closure are discussed above in the Environmental Justice section and the full report is included in the Environmental Justice section of the Appendices. The Contractor will provide access to local property owners at all times.

Noise
There would be no noise impacts as this is a bridge replacement project that does not add additional travel lanes.

Other Permits & Coordination
Appropriate coordination with U.S. Coast Guard was conducted during plan development and the appropriate permit shall be obtained.

Summary of Commitments
Pre-Construction Commitments:
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.

<u>Conservation Commitments</u>
ODOT Commitment: A representative from ODOT Natural Resources Program will need to attend all project development meetings, including the pre-work meeting for the project. It will be the responsibility of the Environmental Project Manager to notify the ODOT Natural Resources Program of any such meetings. All operators, employees, and contractors 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 Minimization Commitment: In order to avoid and minimize adverse impacts to listed bat species, the removal of trees and shrubs shall 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, during the design of the project. Tree removal will be limited to that specified in the project plans provided to contractors.

Indiana Bat Mitigation Commitment: Suitable forested roosting habitat for the Indiana bat has been identified within the immediate vicinity of the proposed project. An acoustic survey to detect for the presence of bats will be conducted. Removal of any trees, including tree clearing for utility relocation, is prohibited until the acoustic survey can be conducted (May 1 to August 15 survey window). If the survey is positive, ODOT will mitigate for impacts to the species. In addition, all removal of trees and shrubs must be mitigated for adverse impacts to Indiana bat habitat based on when tree removal will occur. In order to mitigate adverse impacts to Indiana bat habitat, the ODOT EPM will submit 65% (Right of Way submittal) plans, and Microstation or shapefiles to the ODOT Biologist well in advance of project letting in order to delineate impacts to bat habitat, coordinate with USFWS and to assess mitigation payment totals. Payment must be made prior to any ground disturbance and/or tree removal, including but not limited to utility relocation and construction activities. Proof of mitigation is required by USFWS prior to any tree removal. Once the ODOT Biologist has received confirmation of payment, the EPM will be notified.

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
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.

<u>Cultural Resources Notes</u>
Locations outside the project area in the following areas must not be utilized for borrow, equipment staging, haul roads, spoil dumps, or any off-site project-related activity.

T12N R21E
Section 7: **SE ¼**
Section 18: **NE ¼ SW ¼**
NE ¼ SE ¼
SW ¼ NW ¼
N ½ NW ¼ NE ¼

T12N R20E
Section 13: **All**

<u>Species Plan Notes</u>
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 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 OKRl0 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 Seasonal Restriction Note: The gray bat, Indiana bat, Ozark big-eared bat and the northern long-eared 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 16, and March 31 (when bats are hibernating in caves). If bridge repair, retrofit, maintenance, rehabilitation or demolition during the active season (between April 1, and November 15) 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 16, and March 31 (when bats are hibernating in caves).

Bat Tree Removal Seasonal Restriction Note: The gray bat, Indiana bat, Ozark big-eared bat and northern long-eared bat are listed bat species that occur within the project's action area. In order to avoid adverse impacts to these species, 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 is positive, all removal of trees will be permitted only between August 1 and April 30, outside the pupping season. <u>In addition, ODOT Environmental Programs Division will reconsult with USFWS to mitigate adverse impacts prior to any tree clearing (including utilities).</u>

Bat Lighting Note: All temporary lighting, if used, will be directed away from suitable bat habitat during the active season for bats (April 1- November 15). 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.

Whooping Crane Plan Note: If Whooping Cranes are seen at or within one mile of the proposed work site, the Resident Engineer shall immediately contact the ODOT Biologist. If there is a confirmed sighting and/or Whooping Cranes are observed within one mile of the proposed work site, all construction activities shall cease until it is determined that Whooping Cranes have left the project vicinity without being harassed.

Bald Eagle Nest Avoidance Note: The Bald Eagle nesting season in Oklahoma extends from September 16, through May 31. Nest search surveys can only be conducted when leaves are not on the trees, typically between December 1st and February 28th. Survey results are valid only for the nesting season in which the survey is performed. A Bald Eagle survey was completed for this project in January 2021. Nests were observed within the expected impact area. A no-work buffer shall be placed around the nest from STA.284+00 extending to the east end of the project area (see Figure 1 attached). If the buffer cannot be maintained, all clearing, external construction and landscaping activities within 1,000 feet of the nest 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 SH-100 Arkansas River bridge (NBI:17611) was observed. Painting, repair, retrofit, rehabilitation or demolition of the existing bridge 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 bridge 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.

Species	Seasonal Restriction Period
Bats	April 1 – November 15
Bald Eagle (NEST PRESENT)	September 16 – May 31
Migratory Birds: Swallows and Phoebes (NESTS PRESENT)	March 1 – August 31
Migratory Birds: Interior Least Tern	May 1 – August 31

Interior Least Tern Note: Interior Least Terns are protected by the federal Migratory Bird Treaty Act. Interior Least Terns nesting habitat is present within and downstream of the Arkansas River within the project area. The Resident Engineer shall contact the ODOT Biologist to schedule a pre-construction nesting survey during the month of June; surveys are valid for that nesting season only. If construction activities will occur during the active nesting season for this species (May 1 through August 31), a 0.25 mile no-work-zone buffer from the Ordinary High Water Mark of the Arkansas River will be established until the nesting survey can be completed. If the survey finds Interior Least Terns nesting in the area, all work within 0.25 miles of any nesting colonies will be postponed until after September 1 (the end of nesting season) and be completed by April 30, the following year.

Conclusions

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 on the environment as defined by 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 Statement. As provided by the 2019 Federal Highway Administration (FHWA)/ODOT Programmatic Agreement Processing of Categorical Exclusions, FHWA has previously determined that processing this action as a Documented Categorical Exclusion (DCE) is appropriate. Based on consideration of prior planning studies, appropriate agency solicitation, thorough environmental review, and public coordination, ODOT has determined that this action results in no significant impacts to the human and natural environment, involves no public controversy on environmental grounds, and no inconsistency with any federal, state or local laws, regulations, and administrative determinations relating to the environment. FHWA concurrence with this finding is requested.

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.

Preparer/Reviewer Signatures

Kelly A. Saladis	1/31/2022
Environmental Consultant Project Manager (If Applicable)	Date
CP&Y, Inc.	
Environmental Consultant Firm Name (If Applicable)	
County Commissioner or City Manager (For County Local Government or City Projects)	Date
William Ward	Digitally signed by William Ward Date: 2022.03.03 17:17:01 -06'00'
ODOT Environmental Project Manager	Date
Amber McIntyre	Digitally signed by Amber McIntyre Date: 2022.03.04 12:51:11 -06'00'
ODOT Environmental Programs Interim Assistant Division Manager	Date
Joe Brutsché	Digitally signed by Joe Brutsché Date: 2022.03.04 05:44:32 -06'00'
ODOT Environmental Programs Interim Division Manager	Date

Concurrence that this project qualifies for a Documented Categorical Exclusion:

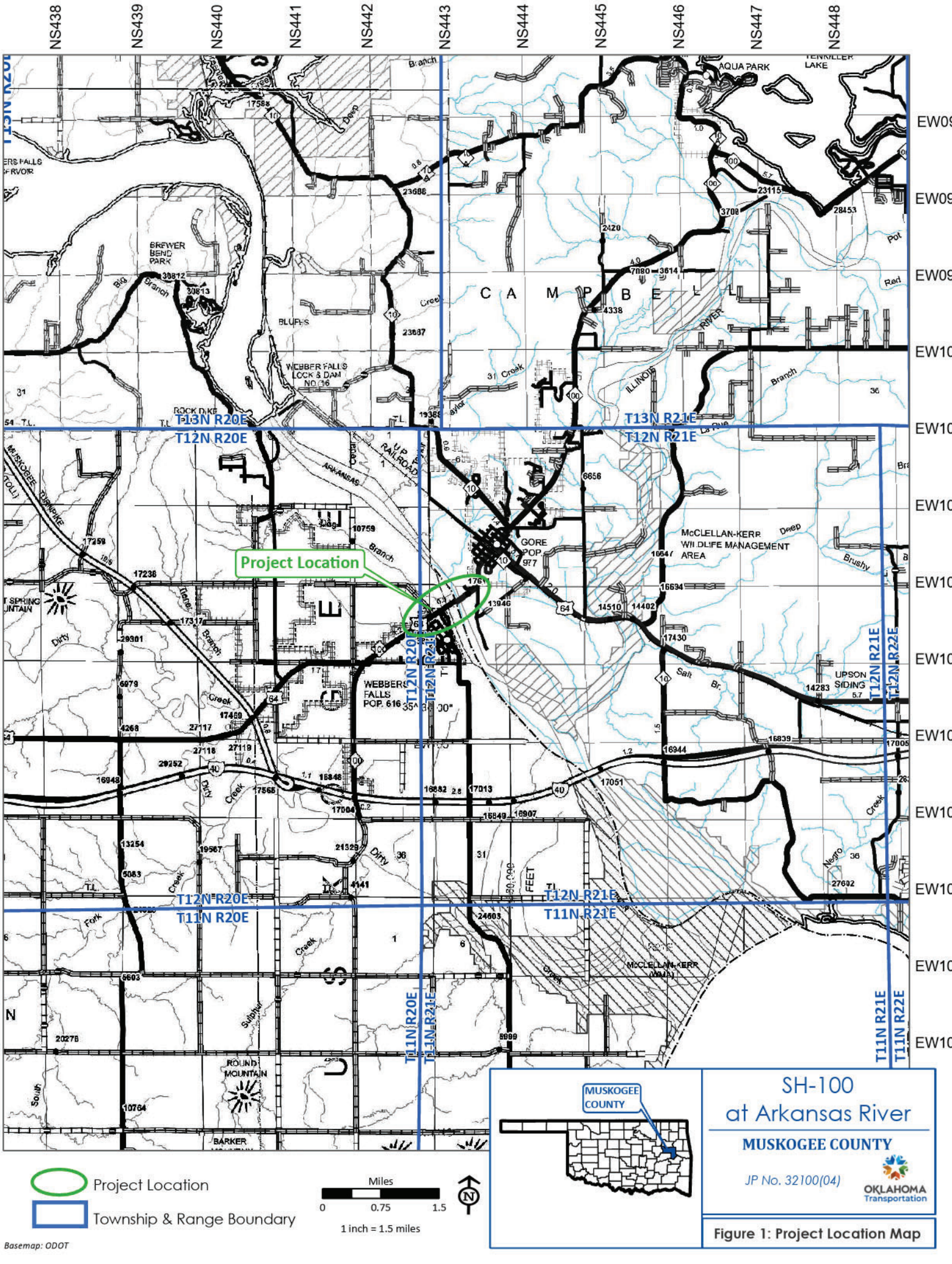
Ralph Nguyen	Digitally signed by Ralph Nguyen Date: 2022.03.08 09:35:04 -06'00'
Environmental Programs Manager, FHWA	Date

Attachments:

Location Map
Current Plans and Study Footprint
Early Coordination
Tribal and Federal Properties
Public Involvement
Studies and Coordination
DCE Justification Document

Distribution List (Check Applicable Ones)

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

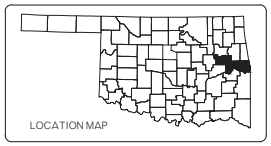

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EW108
EW109
Project Location
T13N R20E
T12N R20E
T13N R21E
T12N R21E
T12N R22E
T11N R20E
T11N R21E
T11N R22E
WEBBERS FALLS POP. 616
GORE POP. 877
UPSON SIDING
McCLELLAN-KERR WILDLIFE MANAGEMENT AREA
AQUA PARK
BREWER BEND PARK
BLUFFS
WEBBER FALLS LOCK & DAM NO. 16
ROCK DIKE
ROUND MOUNTAIN
BARKER
ARKANSAS RIVER
ILLINOIS RIVER
Project Location
Township & Range Boundary
Miles
0
0.75
1.5
1 inch = 1.5 miles
Basemap: ODOT
MUSKOGEE COUNTY
SH-100
at Arkansas River
MUSKOGEE COUNTY
JP No. 32100(04)
OKLAHOMA Transportation
Figure 1: Project Location Map

RIGHT-OF-WAY PLANS OR FINAL PLANS AND

NEPA STUDY FOOTPRINT OR STUDY PLANS

OKLAHOMA DEPARTMENT OF TRANSPORTATION

PROPOSED
R/W
FEBRUARY 2021



FOR SURVEY CONTROL DATA,
SEE SURVEY DATA SHEETS S001-S007

STATE OF OKLAHOMA
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED

STATE HIGHWAY

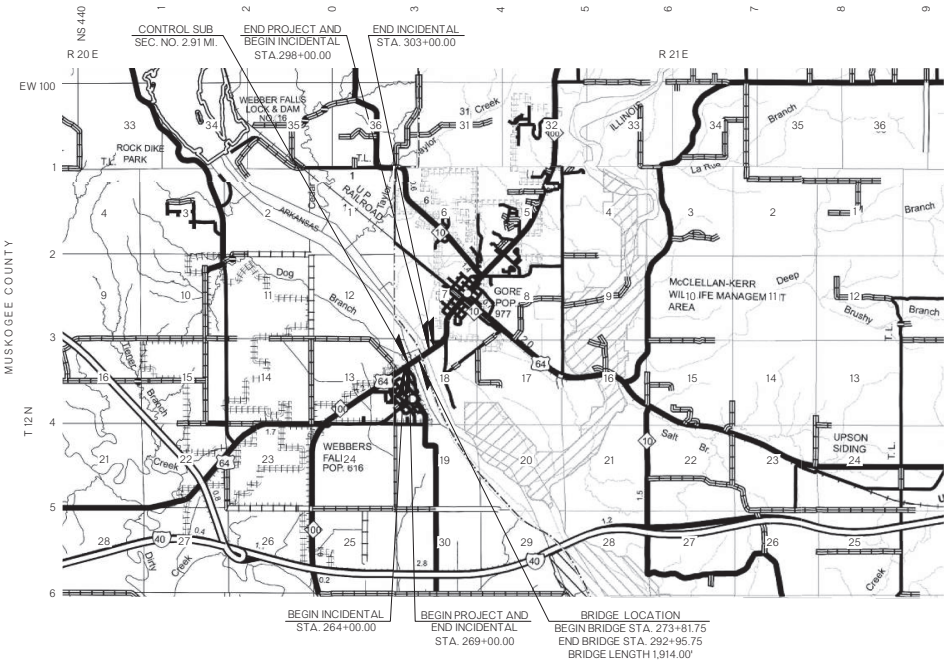
PROJECT NO. J3-2100(004)PM
BRIDGE & APPROACHES
S.H.100/U.S.64 OVER McCLELLAN-KERR ARKANSAS RIVER NAVIGATION WATERWAY

MUSKOGEE COUNTY
SEQUOYAH COUNTY

CONTROL SECTION NO. 100-51-59
STATE JOB NO. 32100(04)
BRIDGE LOCATION NO. 5159 0300 X
EXISTING NBI NO. 17611, NEW NBI NO. XXXXX

INDEX OF SHEETS

NO.	TITLE
0001	TITLE SHEET
0002	TYPICAL SECTION
AB01 - AB02	GENERAL NOTES & SUMMARY OF PAY QUANTITIES (BRIDGE)
AR01	SUMMARY OF PAY QUANTITIES AND NOTES (ROADWAY)
AT01	SUMMARY OF PAY QUANTITIES AND NOTES (TRAFFIC)
AT02	SUMMARY OF PAY QUANTITIES & NOTES (SIGNING & STRIPING)
AX01	SUMMARY SHEET
B001 - B005	GENERAL PLAN AND ELEVATION
B006	SEQUENCE OF BRIDGE CONSTRUCTION
B007	BRIDGE TYPICAL SECTION
B008	SUPERSTRUCTURE DETAILS
B009 - B010	NAVIGATION LIGHTING DETAILS
R001	DRAINAGE MAP
R002	STORM WATER MANAGEMENT PLAN
R003 - R004	PLAN AND PROFILES
S001 - S007	SURVEY DATA SHEETS
T001	DETOUR PLAN
X001 - X003	CROSS SECTIONS



STANDARDS TO BE INCLUDED

TRAFFIC	BRIDGE	ROADWAY

DESIGN DATA

AADT (2020)	= 3,700 VPD
AADT (2040)	= 5,000 VPD
V (POSTED)	= 55 MPH
K	= 10%
D	= 56%
T (AADT)	= 10%
T (DHV)	= 8%
T3	= 4%
20 YR. FLEX ESALS	= 1.7 M

SCALES 1"

PLAN	1" = 50'
PROFILE HOR.	1" = 50'
VER.	1" = 10'
LAYOUT MAP	1" = 4,000'

CONVENTIONAL SYMBOLS

- PROPOSED ROAD
- RAILROADS
- RANGE & TOWNSHIP
- SECTION LINES
- QUARTER SECTION LINES
- FENCES
- GROUND LINE
- EXISTING ROADS
- BASE LINE
- GRADE LINES
- TELEPHONE & TELEGRAPH
- POWER LINES
- BUILDINGS
- OILWELL
- DRAINAGE STRUCTURES - IN PLACE
- DRAINAGE STRUCTURES - NEW
- PRES. R/W — RIGHT-OF-WAY LINES - EXISTING
- R/W — RIGHT-OF-WAY LINES - NEW
- CONTROLLED ACCESS
- R/W — RIGHT-OF-WAY FENCE

ROADWAY LENGTH	986.00 FT.		0.186 MI.
BRIDGE LENGTH	1,914.00 FT.		0.362 MI.
PROJECT LENGTH			0.548 MI.
EQUATIONS	NONE		
EXCEPTIONS	NONE		

2019 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION GOVERN, APPROVED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION, DECEMBER 18, 2019.

PREPARED BY:
WHITE ENGINEERING ASSOCIATES, INC.
OKLAHOMA C.A. NO. 1832 (EXP. 6/30/21)
THIS SEAL APPLIES TO SHEET NOS: 0001, AB01, AB02, B001-B010

DATE _____ C. EDWARD GRINSTEINER
OKLAHOMA LICENSE NO. 19993

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

PREPARED BY:
HOLLOWAY, UPDIKE, & BELLEN, INC.
OKLAHOMA C.A. NO. 219 (EXP. 6/30/21)
THIS SEAL APPLIES TO SHEET NOS: 0002, AR01, AT01, AT02, AX01, R001-R004, T001, X001-X003

DATE _____ WESLEY M. STEWART
OKLAHOMA LICENSE NO. 24031

OKLAHOMA DEPARTMENT OF TRANSPORTATION	DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION
DATE APPROVED	DATE APPROVED
BY	BY
CHIEF ENGINEER	DIVISION ADMINISTRATOR

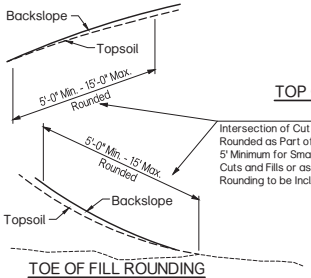
SWO 5375(1) PROJECT NO. J3-2100(004(PM)
COUNTY MUSKOGEE-SEQUOYAH HIGHWAY SH100 SHEET NO. 0001

J.P. NO. 32100(04)

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OKLAHOMA DEPARTMENT OF TRANSPORTATION

PROPOSED
R/W
FEBRUARY 2021



TOE OF FILL ROUNDING

TOP OF CUT ROUNDING

Intersection of Cut and/or Fill Slopes with Ground Line to be Rounded as Part of the Finishing Operations. Rounding 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 Rounding to be Included in Price Bid for Other Items of Work.

TYPICAL DIKE SECTION AND ROUNDING DETAILS

NOTES:

* UNLESS OTHERWISE SHOWN ON CROSS SECTIONS.

(1) THE CONTRACTOR SHALL STRIP ALL OF THE AVAILABLE TOPSOIL WITHIN THE LIMITS OF CONSTRUCTION, APPROXIMATELY 5" DEEP, STOCKPILE THE MATERIAL AND REPLACE THE TOPSOIL ON THE FINISHED SLOPES OF THE GRADING SECTION. ALL ADDITIONAL COSTS NOT COVERED IN OTHER ITEMS SHALL BE INCLUDED IN THE LUMP SUM TOPSOIL ITEM AS FOLLOWS:

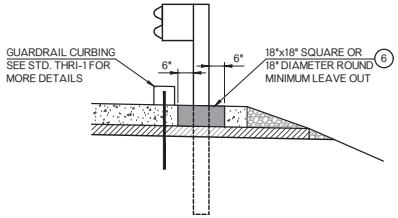
(2) THE GRADING LINE AS SHOWN ON THE TYPICAL AND CROSS SECTIONS IS TO THE TOP OF THE TOPSOIL EARTHWORK QUANTITIES WERE NOT ADJUSTED FOR SALVAGE AND THE TOPSOIL QUANTITY IS INCLUDED IN THE MASSLINE BALANCE. SEE ROUNDING DETAIL.

(3) ESTIMATED AT 0.25 GALLONS PER SQ. YD. TOP OF BASE COURSE AND 0.35 GALLONS PER SQ. YD. TOP OF SUBGRADE.

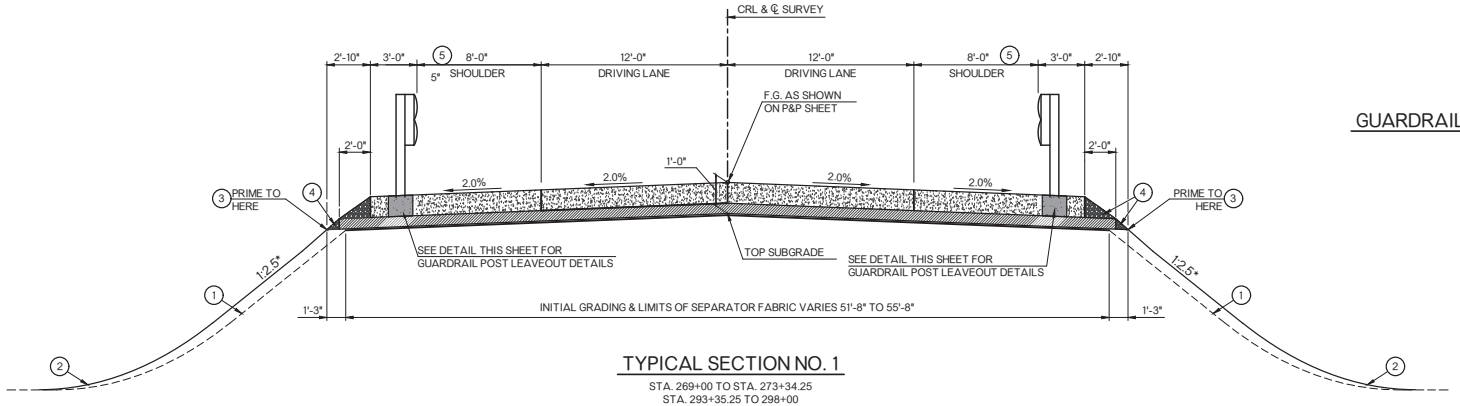
(4) AREA TO BE BACKFILLED AND COMPACTED WITH TBSC TYPE "E" AS PART OF FINISHING OPERATIONS.

(5) SHOULDER WIDTH VARIES FROM 8'-0" TO 10'-0".

(6) THE LEAVE OUTS SHALL BE FILLED WITH GROUT. PAYMENT FOR THE FURNISHING AND PLACEMENT OF THE GROUTING MIXTURE WILL BE INCLUDED IN THE COST OF W-BEAM GUARDRAIL.



GUARDRAIL POST LEAVE OUT



TYPICAL SECTION NO. 1

STA. 269+00 TO STA. 273+34.25
STA. 293+35.25 TO 298+00

PAVEMENT REQUIREMENTS		
8" PAVT. STRUCTURE	12' DRIVING LANES	8' PAVED SHOULDERS & GUARDRAIL WIDEN
SURFACE COURSE	8" P.C. CONCRETE PAVEMENT	8" P.C. CONCRETE PAVEMENT
BASE COURSE	4" CEMENT TREATED BASE	4" CEMENT TREATED BASE

DESIGN	WS	10/19
DRAWN	RR	10/19
CHECKED	WS	10/19
APPROVED		
SQUAD	HUB ENGINEERS	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION

TYPICAL SECTION

COUNTY MUSK./SEQ. HIGHWAY SH-100 STATE JOB NO. 32100(04) SHEET NO. 0002

HUB Engineers
Time of Plot: 2/26/2021 9:43 AM Plot Style: --HUB-HALF.CTB
(G:\2019\19OOOTI064\DESIGN\Production Plans\002--32100(04)--TYPICAL SECTION.dwg

OKLAHOMA DEPARTMENT OF TRANSPORTATION

PROPOSED
R/W
FEBRUARY 2021

ROADWAY GENERAL CONSTRUCTION NOTES:

THIS PROJECT SHALL BE CONSTRUCTED BY CLOSING THE EXISTING ROAD TO LOCAL AND THROUGH TRAFFIC. TRAFFIC WILL BE DETOURED USING PORTIONS OF SH-100, I-40 & US-64. SEE SHEET T001 FOR DETOUR PLAN.

FOR PROJECTS THAT INCLUDE WIDENING AND/OR RESURFACING, THE CONTRACTOR SHALL SCHEDULE OPERATIONS TO MINIMIZE POTENTIAL DROP-OFF HAZARDS AND SHALL SUBMIT A SEQUENCE OF CONSTRUCTION OPERATIONS TO THE RESIDENT ENGINEER FOR APPROVAL BEFORE OPERATIONS BEGIN. ANY PORTION OF THE CONSTRUCTION OPERATIONS, SUCH AS SUPERPAVE LYING OPERATIONS,EXCAVATION FOR PAVEMENT WIDENING, OR EXTENSION OF ROADWAY STRUCTURES,SHALL BE LIMITED TO ONE SIDE AT A TIME, AND THE PROCEDURES OUTLINED IN THE PAVEMENT DROP-OFF TREATMENT STANDARD PDT-1(LATEST REVISION) SHALL BE IMPLEMENTED. ONLY THAT AMOUNT OF OPEN TRENCH WILL BE ALLOWED THAT CAN BE SURFACED IN 1(ONE) DAY'S TIME WITHOUT APPROVAL BY THE ENGINEER. LIGHTS,SIGNS, AND BARRICADES SHALL BE MOVED AS WORK PROGRESSES.

THE CONTRACTOR SHALL GIVE NOTICE TO CHEROKEE COUNTY AND THE OKLAHOMA DEPARTMENT OF TRANSPORTATION DIVISION I ENGINEER, IN WRITING FOURTEEN (14) CALENDAR DAYS BEFORE WORK BEGINS ON THE PROJECT.

BENCHING OF EXISTING SIDE SLOPES STEEPER THAN 1:4 WILL BE REQUIRED.

G-1 IN ACCORDANCE WITH THE OKLAHOMA UNDERGROUND FACILITIES DAMAGE PREVENTION ACT THE CONTRACTOR SHALL NOTIFY THE OKLAHOMA ONE-CALL SYSTEM, INC. "CALL OKIE" 1-800-522-6543 OR 811.

G-6 ALL TREES, BRUSH, AND OTHER DEBRIS THAT MIGHT INTERFERE WITH THE FLOW OF WATER SHALL BE CLEANED OUT TO THE RIGHT-OF-WAY LINE, AT EACH STRUCTURE AND BRIDGE, IN A MANNER APPROVED BY THE ENGINEER. ALL COST TO BE INCLUDED IN OTHER ITEMS OF WORK.

G-8 ALL FLOWLINES THAT ARE TO BE FILLED SHALL BE THOROUGHLY TAMPED BEFORE CONSTRUCTION OR EXTENSION OF DRAINAGE STRUCTURES. ALL COST TO BE INCLUDED IN OTHER ITEMS OF WORK.

G-9 IN ORDER TO ALLEVIATE DUST CONDITIONS DURING GRADING OPERATIONS AND BEFORE PAVEMENT WORK IS COMPLETED, THE CONTRACTOR SHALL SPRINKLE GRADING AT INTERVALS APPROVED BY THE ENGINEER. ALL COST TO BE INCLUDED IN OTHER ITEMS OF WORK.

G-11 THE CONTRACTOR SHALL NOT WASTE ANY EXCESS EXCAVATION UNTIL ALL PLANNED EMBANKMENTS AND BACKFILLS ARE COMPLETED. EXCESS UNCLASSIFIED EXCAVATION MATERIAL DETERMINED BY THE ENGINEER TO BE SUITABLE FOR BACKFILL SHALL BE USED TO REDUCE ANY UNCLASSIFIED BORROW NEEDED. COST OF SECOND HANDLING SHALL BE INCLUDED IN OTHER ITEMS OF WORK. ANY REMAINING EXCESS EXCAVATION SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND BE DISPOSED OF IN A MANNER APPROVED BY THE ENGINEER.

G-13 THE CONTRACTOR SHALL KEEP THE OPEN TRENCH DRAINED. COST TO BE INCLUDED IN OTHER ITEMS OF WORK.

G-18 VEGETATIVE MULCHING: THE VEGETATIVE MULCH SHALL BE ANCHORED IN ACCORDANCE WITH THE "MULCHING TILLER METHOD", AS SPECIFIED IN 233.04B(2) OF THE STANDARD SPECIFICATIONS.

G-23 AREAS ON WHICH SALVAGED TOPSOIL IS TO BE REPLACED SHALL HAVE 18-46-0 FERTILIZER APPLIED, AT THE RATE OF 150 POUNDS PER ACRE, JUST PRIOR TO THE REPLACEMENT OF SALVAGED TOPSOIL.

G-25 AT THE BEGINNING OF TURFING OPERATIONS, ANY AREAS INCLUDED IN PLANNED QUANTITIES THAT HAVE GROWN A SATISFACTORY VOLUNTEER TURF OF PERENNIAL GRASS, AS DETERMINED BY THE ENGINEER, SHALL BE FERTILIZED AND WATERED AS CALLED FOR ON THE PLANS, BUT SHALL NOT BE SEEDED, SODDED, OR SPRIGGED.

G-27 THE CONTRACTOR SHALL REMOVE AND RESET MAILBOXES AS NECESSARY. MAILBOXES ARE TO BE MAINTAINED IN AN UPRIGHT POSITION AND ACCESSIBLE TO MAIL CARRIER'S CAR DURING CONSTRUCTION. ANY DAMAGE TO BOXES OR SUPPORTS SHALL BE REPAIRED BY THE CONTRACTOR. ALL COST TO BE INCLUDED IN OTHER ITEMS OF WORK.

G-30 SURFACING OF RETURNS, UNLESS OTHERWISE SHOWN ON THE PLANS, SHALL BE OF THE SAME MATERIAL (BASE AND SURFACE) AS THAT OF THE ABUTTING SHOULDER OF THE MAINLINE. BASE AND SURFACE THICKNESS SHALL BE THE THICKNESS SHOWN ON PLANS.

G-31 T.B.S.C. SURFACES SHALL BE SPRINKLED WITH WATER AND ROLLED WITH A PNEUMATIC ROLLER IN A MANNER APPROVED BY THE ENGINEER.

ROADWAY PAY QUANTITY NOTES:

R-1 PAYMENT FOR THIS ITEM WILL BE BASED ON PLAN QUANTITY ONLY. SEE SECTION 109.01B OF THE STANDARD SPECIFICATIONS.

R-3 INCLUDES [redacted] CU. YDS. FOR DRIVEWAYS, RETURNS, DIKES, AND MISCELLANEOUS EARTHWORK.

R-8 PRICE BID TO INCLUDE COST OF SEDIMENT REMOVAL AND ALL MAINTENANCE. SEDIMENT MUST BE REMOVED WHEN IT REACHES HALF OF THE HEIGHT OF THE DEVICE.

R-18 ESTIMATED AT 165 POUNDS PER CU. FT.

R-28 PRIME COAT SHALL BE APPLIED AT AN ESTIMATED RATE OF 0.35 GAL. PER SQ. YD. WHEN APPLIED TO SUBGRADE, AND 0.25 GAL. PER SQ. YD. WHEN APPLIED TO AGGREGATE BASE. THE ACTUAL CUTBACK PRIME COAT REQUIRED FOR PLACEMENT OPERATIONS WILL BE DETERMINED BY THE CONTRACTOR, AND SHALL CONSIDER THE RESIDUE FROM DISTILLATION PERCENTAGE SHOWN IN SECTION 708.03 OF THE STANDARD SPECIFICATIONS.

R-30 QUANTITY INCLUDES AN ESTIMATED [redacted] C.Y. TO BE USED AS DIRECTED BY THE ENGINEER.

R-36 INCLUDES REMOVAL OF ALL EXISTING ROADWAY DRAINAGE STRUCTURES, HEADWALLS (UNLESS OTHERWISE SPECIFIED), INLETS, FENCES, AND OTHER STRUCTURES WITHIN THE RIGHT OF WAY.

R-37 TO BECOME THE PROPERTY OF AND BE DISPOSED OF BY THE CONTRACTOR IN A MANNER APPROVED BY THE ENGINEER.

R-38 MATERIALS REMOVED SHALL NOT BE MEASURED FOR PAYMENT UNDER SECTION 202.06 UNCLASSIFIED EXCAVATION.

1. THE LIMITS OF CLEARING AND GRUBBING SHALL BE THE MINIMUM AMOUNT REQUIRED FOR CONSTRUCTION AND INSTALLATION OF NEW FENCE.
2. INCLUDES [redacted] TONS TO BE USED AS DIRECTED BY THE ENGINEER.
3. QUANTITY INCLUDES [redacted] CY FOR USE IF ON-SITE MATERIAL IS UNSUITABLE, AS DIRECTED BY THE ENGINEER.
4. ESTABLISHMENT OF HORIZONTAL AND VERTICAL CONTROLS, INCLUDING THE SETTING OF BENCHMARKS, THE STAKING OF RIGHT OF WAY, RE-ESTABLISHMENT OF RIGHT OF WAY FOR FENCING AS REQUIRED, SETTING THE CENTERLINE, CALCULATING AND STAKING HAUNCH GRADES FOR BRIDGE AS REQUIRED SHALL BE INCLUDED IN THE PRICE BID FOR STAKING.
5. THE CONTRACTOR MUST PROVIDE TESTING RESULTS FROM A CERTIFIED LAB THAT THE BORROW SITE IS FREE FROM DISPERSIVE CLAYS AS REQUIRED IN SECTION 202.02(A) IN THE 2009 SPEC BOOK BEFORE ANY MATERIAL CAN BE PLACED ON THE PROJECT. COST TO BE INCLUDED IN PAY ITEM FOR UNCLASSIFIED BORROW.
6. THE REMOVAL OF EXISTING PAVEMENT SHALL BE PERFORMED IN A MANNER THAT WOULD MINIMIZE DAMAGE TO THE ADJACENT PAVEMENT. NO COMPENSATION WILL BE MADE TO THE CONTRACTOR FOR REPAIRING DAMAGE SUSTAINED DURING THE REMOVAL PROCESS. PAYMENT OF THIS ITEM SHALL BE FULL COMPENSATION FOR FURNISHING ALL MATERIALS, EQUIPMENT, LABOR AND INCIDENTALS TO COMPLETE THE WORK AS SPECIFIED, INCLUDING ANY BASE REPAIR, LEVELING OR BACKFILL.
7. THE FIELD OFFICE IS TO HAVE HIGH-SPEED INTERNET AVAILABLE THROUGHOUT THE ENTIRE PROJECT. PRICE BID TO BE INCLUDED IN THE COST FOR FIELD OFFICE.

0300 ROADWAY

PAY QUANTITIES (ROADWAY)

J/P NO. 32100(04)

SPEC. NO.	BAMS NO.	DESCRIPTION	PAY ITEM NOTES	UNIT	QUANTITY
201(A)	0102	CLEARING AND GRUBBING	1	L.SUM	
202(A)	0183	UNCLASSIFIED EXCAVATION	R-3	C.Y.	
202(D)	0184	UNCLASSIFIED BORROW	3,5,R-1,R-3	C.Y.	
221(C)	2801	TEMPORARY SILT FENCE	R-8	L.F.	
221(F)	0100	TEMPORARY SILT DIKE	R-8	L.F.	
317	4270	CEMENT TREATED BASE		S.Y.	
325	5271	SEPARATOR FABRIC		S.Y.	
402(E)	0225	TRAFFIC BOUND SURFACE COURSE TYPE E	2,R-18	TON	
408	5774	PRIME COAT	R-28	GAL.	
414(A)	0210	P.C. CONCRETE PAVEMENT (PLACEMENT)		S.Y	
414(G)	5275	P.C. CONCRETE FOR PAVEMENT		C.Y.	
509(D)	0325	CLASS C CONCRETE	R-30	C.Y.	
619(A)	0920	REMOVAL OF STRUCTURES & OBSTRUCTIONS	R-36,R-37	L.SUM	
619(B)	4727	REMOVAL OF CONCRETE PAVEMENT	R-37,6	S.Y.	
619(B)	4728	REMOVAL OF ASPHALT PAVEMENT	R-37,R-38,6	S.Y.	
619(B)	4780	REMOVAL OF GUARDRAIL	R-37	L.F.	
619(C)	0924	SAWING PAVEMENT	6	L.F.	
623(A)	0932	BEAM GUARDRAIL W-BEAM SINGLE		L.F.	
623(I)	8700	GUARDRAIL BRIDGE CONN-THRIE BEAM (31")		EA.	

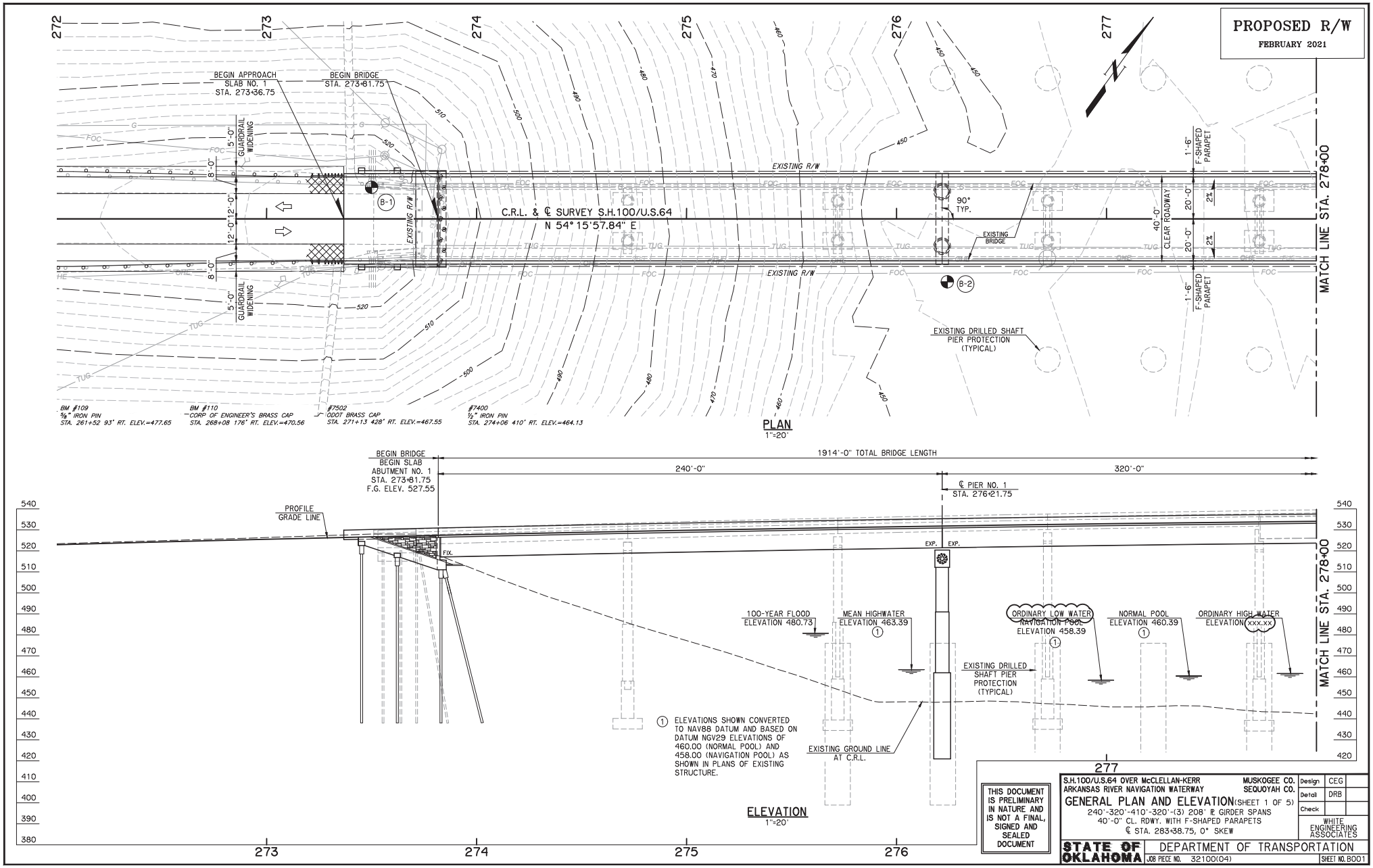
DESIGN	WS	10/19
DRAWN	RR	10/19
CHECKED	WS	10/19
APPROVED		
SQUAD	HB ENGINEERS	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION

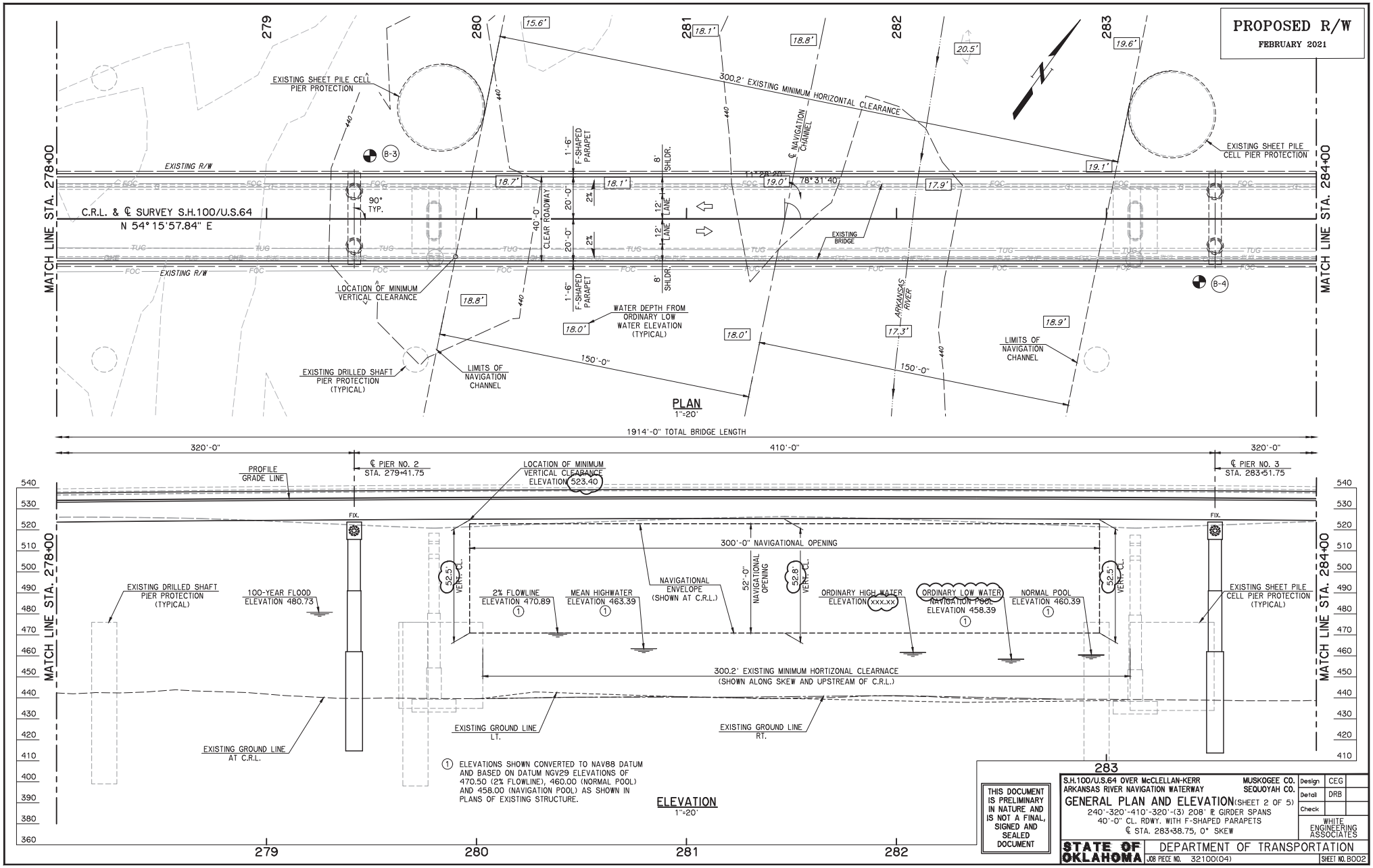
SUMMARY OF PAY QUANTITIES & NOTES (ROADWAY)

COUNTY MUSK./SEQ. HIGHWAY SH-100 STATE JOB NO. 32100(04) SHEET NO. AB01

HNB Engineers
Time of Plot: 2/26/2021 9:44 AM Plot Style: MONOCHROME.STB
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S.H.100/U.S.64 OVER McCLELLAN-KERR ARKANSAS RIVER NAVIGATION WATERWAY
MUSKOGEE CO. SEQUOYAH CO.

Design CEG
Detail DRB
Check

GENERAL PLAN AND ELEVATION (SHEET 2 OF 5)

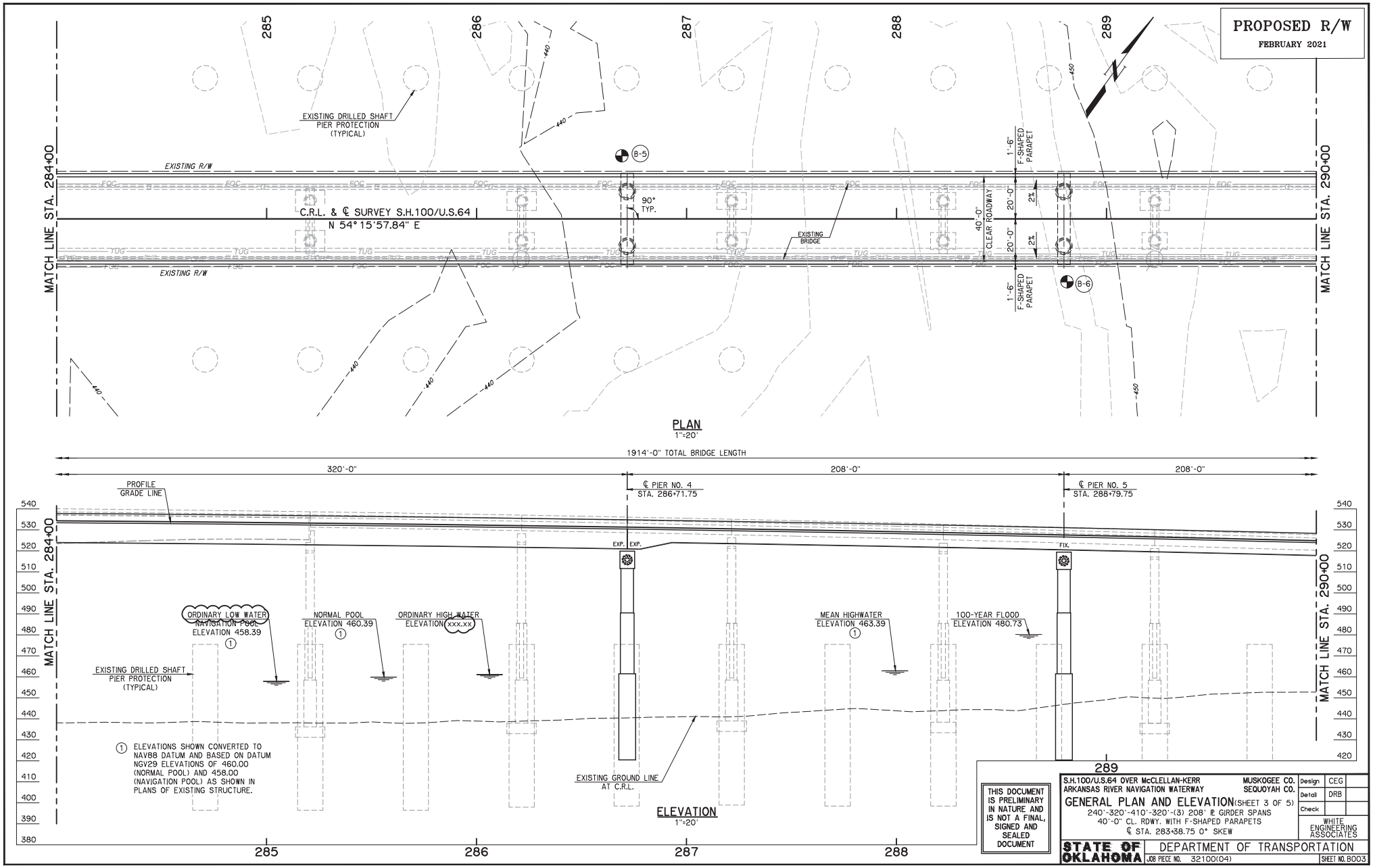
240'-320'-410'-320'-(3) 208' ℄ GIRDER SPANS
40'-0" CL. RDWY. WITH F-SHAPED PARAPETS
℄ STA. 283+38.75, 0° SKEW

WHITE ENGINEERING ASSOCIATES

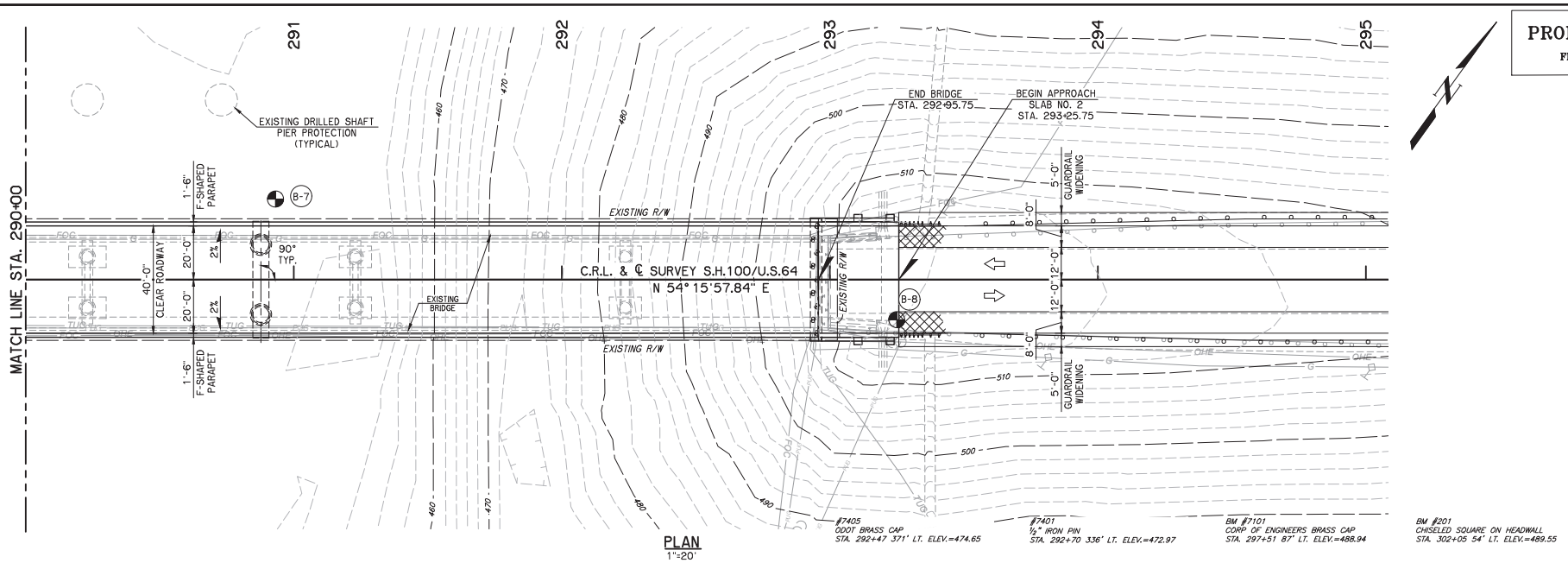
STATE OF OKLAHOMA — DEPARTMENT OF TRANSPORTATION

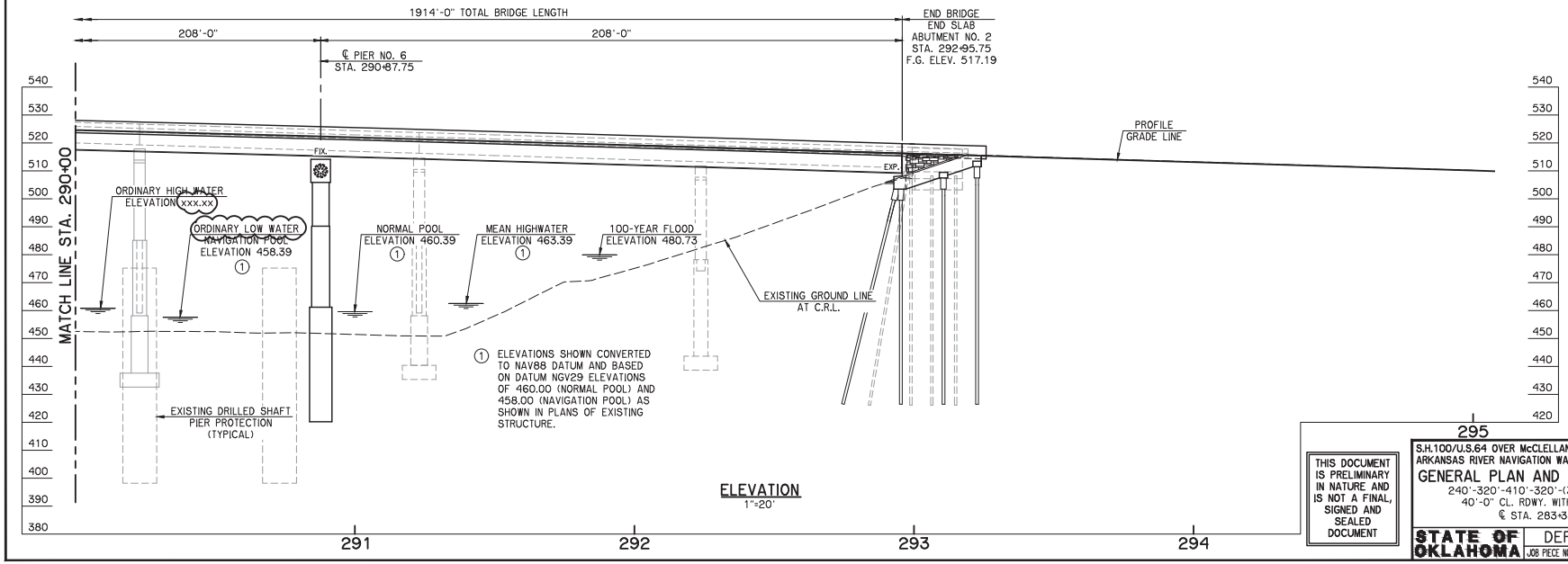
JOB PIECE NO. 32100(04) — SHEET NO. B002

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S.H.100/U.S.64 OVER McCLELLAN-KERR ARKANSAS RIVER NAVIGATION WATERWAY
MUSKOGEE CO. SEQUOYAH CO.

GENERAL PLAN AND ELEVATION (SHEET 4 OF 5)

240'-320'-410'-320'-(3) 208' ℔ GIRDER SPANS
40'-0" CL. RDWY. WITH F-SHAPED PARAPETS
℄ STA. 283+38.75, 0° SKEW

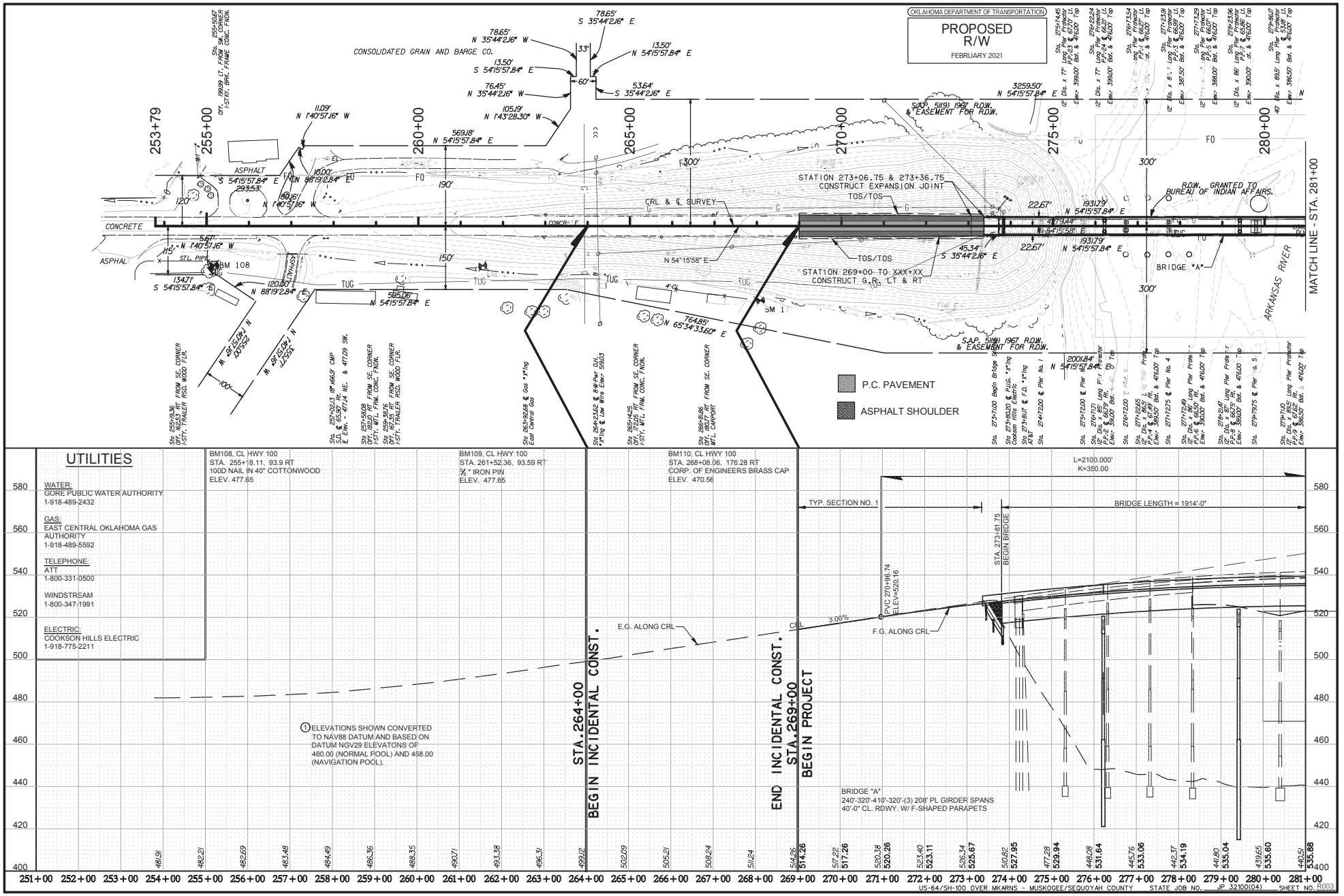
Design	CEG	
Detail	DRB	
Check		

WHITE ENGINEERING ASSOCIATES

STATE OF OKLAHOMA — DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 32100(04) — SHEET NO. B004

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UTILITIES

WATER:
GORE PUBLIC WATER AUTHORITY
1-918-489-2432

GAS:
EAST CENTRAL OKLAHOMA GAS AUTHORITY
1-918-489-5592

TELEPHONE:
ATT
1-800-331-0500

WINDSTREAM
1-800-347-1991

ELECTRIC:
COOKSON HILLS ELECTRIC
1-918-775-2211

BM108, CL HWY 100
STA. 255+18.11, 93.9 RT
100D NAIL IN 40" COTTONWOOD
ELEV. 477.65

BM109, CL HWY 100
STA. 261+52.36, 93.59 RT
¾" IRON PIN
ELEV. 477.65

BM110, CL HWY 100
STA. 268+08.06, 176.28 RT
CORP. OF ENGINEERS BRASS CAP
ELEV. 470.56

① ELEVATIONS SHOWN CONVERTED TO NAV88 DATUM AND BASED ON DATUM NGV29 ELEVATONS OF 460.00 (NORMAL POOL) AND 458.00 (NAVIGATION POOL).

BEGIN INCIDENTAL CONST. STA.264+00

END INCIDENTAL CONST. STA.269+00

BEGIN PROJECT

L=2100.000'
K=350.00

TYP. SECTION NO. 1

BRIDGE LENGTH = 1914'-0"

STA. 272+61.75
BEGIN BRIDGE

PVC 270+96.74
ELEV=520.16

3.00%

E.G. ALONG CRL

F.G. ALONG CRL

CRL

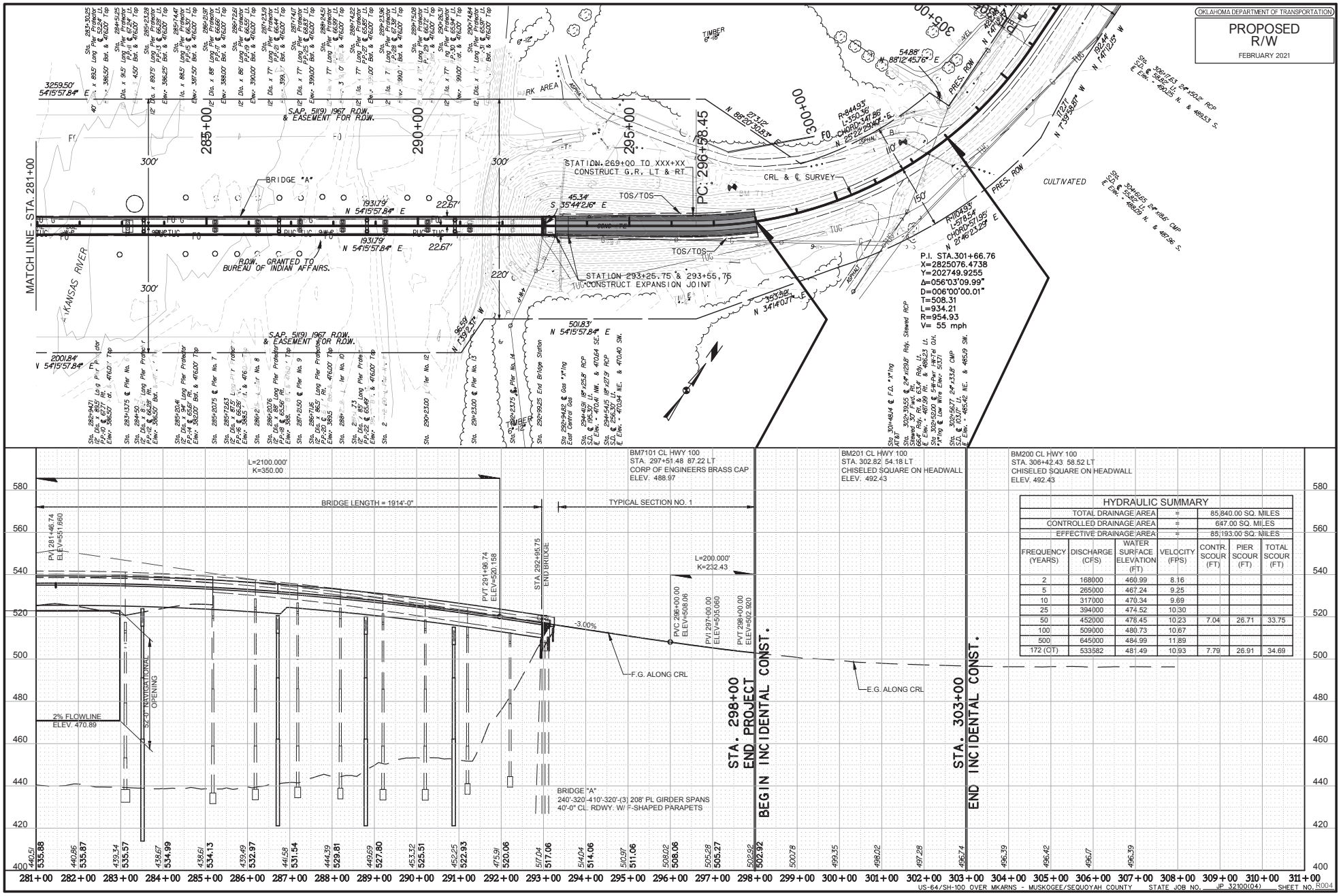
BRIDGE "A"
240'-320'-410'-320'-(3) 208' PL GIRDER SPANS
40'-0" CL. RDWY. W/ F-SHAPED PARAPETS

580 560 540 520 500 480 460 440 420 400

481.91 482.21 482.69 483.48 484.49 486.36 488.35 490.71 493.38 496.31 499.12 502.09 505.21 508.24 511.24 514.26 514.26 517.22 517.26 520.38 520.26 523.40 523.11 526.34 525.67 510.82 527.95 477.28 529.94 448.09 531.64 445.76 533.06 440.37 534.19 441.80 535.04 439.65 535.60 440.51 535.88

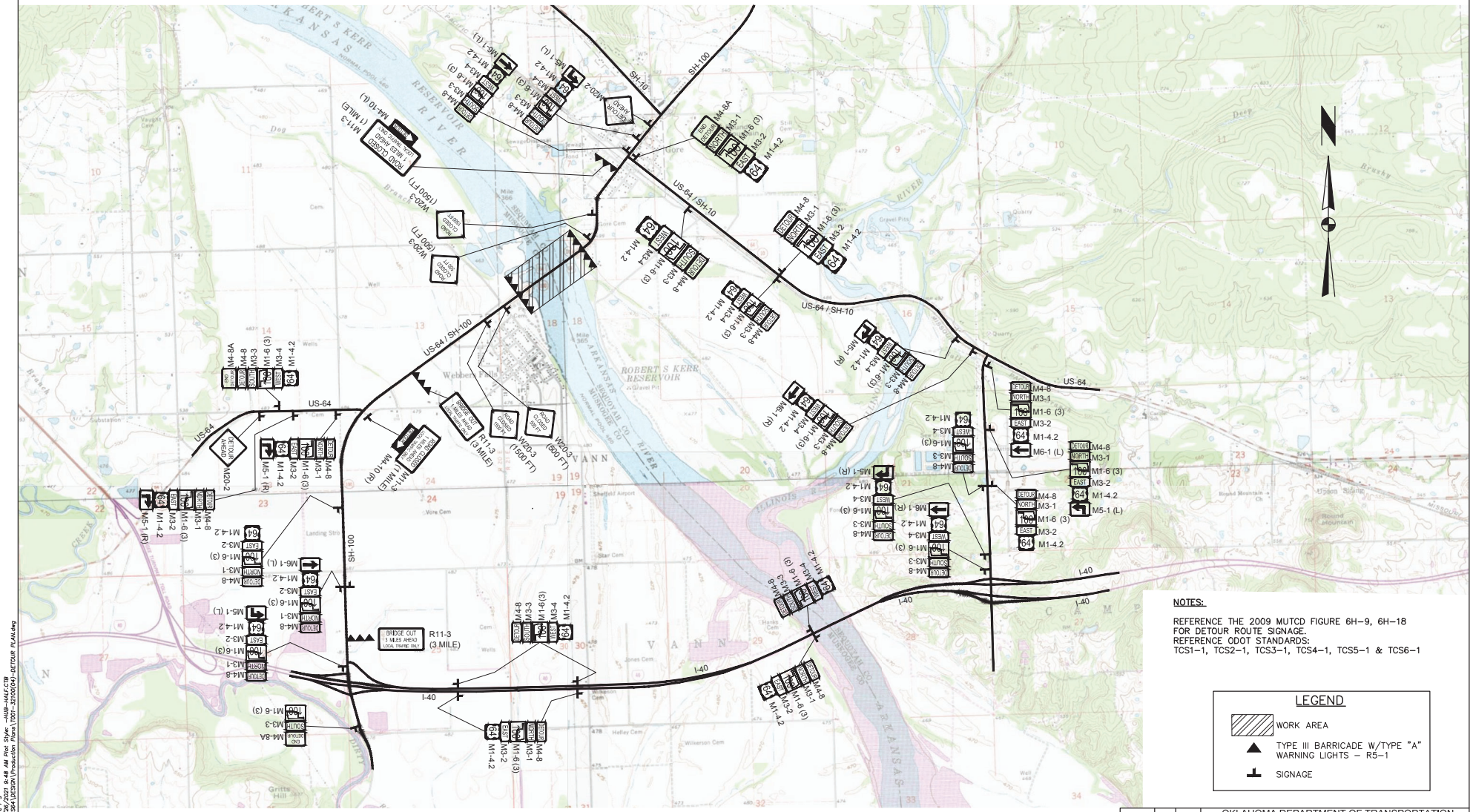
251+00 252+00 253+00 254+00 255+00 256+00 257+00 258+00 259+00 260+00 261+00 262+00 263+00 264+00 265+00 266+00 267+00 268+00 269+00 270+00 271+00 272+00 273+00 274+00 275+00 276+00 277+00 278+00 279+00 280+00 281+00

US-64/SH-100 OVER MKARNS - MUSKOGEE/SEQUOYAH COUNTY STATE JOB NO. JP 32100(04) SHEET NO. R003


OKLAHOMA DEPARTMENT OF TRANSPORTATION
PROPOSED
R/W
FEBRUARY 2021
MATCH LINE - STA. 281+00
KANSAS RIVER
BRIDGE "A"
R.O.W. GRANTED TO BUREAU OF INDIAN AFFAIRS.
S.A.P. 5(9) 1967 R.O.W. & EASEMENT FOR R.O.W.
STATION 269+00 TO XXX+XX CONSTRUCT G.R. LT & RT
CRL & ℄ SURVEY
TOS/TOS
STATION 293+25.75 & 293+55.75 CONSTRUCT EXPANSION JOINT
PC: 296+58.45
P.I. STA.301+66.76
X=2825076.4738
Y=202749.9255
Δ=056°03'09.99"
D=006°00'00.01"
T=508.31
L=934.21
R=954.93
V= 55 mph
PRES. ROW
CULTIVATED
BM7101 CL HWY 100
STA. 297+51.48 87.22 LT
CORP OF ENGINEERS BRASS CAP
ELEV: 488.97
BM201 CL HWY 100
STA. 302.82 54.18 LT
CHISELED SQUARE ON HEADWALL
ELEV: 492.43
BM200 CL HWY 100
STA. 306+42.43 58.52 LT
CHISELED SQUARE ON HEADWALL
ELEV. 492.43
L=2100.000'
K=350.00
BRIDGE LENGTH = 1914'-0"
TYPICAL SECTION NO. 1
L=200.000'
K=232.43
-3.00%
2% FLOWLINE
ELEV. 470.89
52'-0" NAVIGATIONAL OPENING
F.G. ALONG CRL
E.G. ALONG CRL
BRIDGE "A"
240'-320'-410'-320'-(3) 208' PL GIRDER SPANS
40'-0" CL. RDWY. W/ F-SHAPED PARAPETS
STA. 298+00
END PROJECT
BEGIN INCIDENTAL CONST.
STA. 303+00
END INCIDENTAL CONST.
HYDRAULIC SUMMARY
TOTAL DRAINAGE AREA = 85,840.00 SQ. MILES
CONTROLLED DRAINAGE AREA = 647.00 SQ. MILES
EFFECTIVE DRAINAGE AREA = 85,193.00 SQ. MILES
FREQUENCY (YEARS) | DISCHARGE (CFS) | WATER SURFACE ELEVATION (FT) | VELOCITY (FPS) | CONTR. SCOUR (FT) | PIER SCOUR (FT) | TOTAL SCOUR (FT)
2 | 168000 | 460.99 | 8.16
5 | 265000 | 467.24 | 9.25
10 | 317000 | 470.34 | 9.69
25 | 394000 | 474.52 | 10.30
50 | 452000 | 478.45 | 10.23 | 7.04 | 26.71 | 33.75
100 | 509000 | 480.73 | 10.67
500 | 645000 | 484.99 | 11.89
172 (OT) | 533582 | 481.49 | 10.93 | 7.79 | 26.91 | 34.69
US-64/SH-100 OVER MKARNS - MUSKOGEE/SEQUOYAH COUNTY STATE JOB NO. JP 32100(04) SHEET NO. R004

OKLAHOMA DEPARTMENT OF TRANSPORTATION

PROPOSED
R/W
FEBRUARY 2021



NOTES:

REFERENCE THE 2009 MUTCD FIGURE 6H-9, 6H-18
FOR DETOUR ROUTE SIGNAGE.
REFERENCE ODOT STANDARDS:
TCS1-1, TCS2-1, TCS3-1, TCS4-1, TCS5-1 & TCS6-1

LEGEND

- WORK AREA
- TYPE III BARRICADE W/TYPE "A" WARNING LIGHTS – R5-1
- SIGNAGE

DESIGN	WS	10/19
DRAWN	RES	06/20
CHECKED	WS	10/19
APPROVED		
SQUAD		ENGINEERS

OKLAHOMA DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION

DETOUR PLAN

COUNTY MUSK./SEQ. HIGHWAY SH-100 STATE JOB NO. 32100(04) SHEET NO. T001

HUB Engineers
Time of Plot: 2/26/2021 9:48 AM Plot Style: --HUB-HALF.CTB
G:\2019\19D0T1064\DESIGN\Production Plans\T001-32100(04)-DETOUR PLAN.dwg


GORE
7-T12N-R21E
13-T12N-R20E
MUSKOGEE COUNTY
SEQUOYAH COUNTY
100
50'
150'
1500'
2000'
300'
150'
NBI #17611
18-T12N-R21E
WEBBERS FALLS
Arkansas River
MUSKOGEE COUNTY
NEPA Study Area
Bridge
County Boundary
Dimensions
Section
Feet
0 100 200 400
1 inch = 400 feet
Basemap: ESRI World Imagery (Vivid 2016)
SH-100
at Arkansas River
J/P 32100(04)
Muskogee County
NEPA Study Area

EARLY COORDINATION LETTERS AND RESPONSES

OKLAHOMA DEPARTMENT OF TRANSPORTATION

Environmental Programs Division
200 N.E. 21st Street
Oklahoma City, OK 73105-3204
www.odot.org

July 23, 2019

Subject: SH-100: Bridge over the Arkansas River at the Muskogee/Sequoyah County Line, Muskogee County, Job Piece Number 32100(04), Project Number J3-2100(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 bridge over the Arkansas River between Webbers Falls and Gore in Muskogee and Sequoyah Counties. The project is scheduled for 2023 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 safety. 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.

In accordance with Oklahoma Statute 69-702, employees or authorized agents of ODOT may enter your property for the purpose of surveying for the environmental considerations listed above. A copy of Oklahoma Statute 69-702 is provided with this letter. 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. Minor hand digging on your property may be necessary as part of the survey. Any test holes will be filled in and cleaned up afterwards.

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 our authorized agent, Scott Stegmann with CP&Y at 405-835-2836 or sstegmann@cpyi.com. 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 cooperation is greatly appreciated.

Respectfully,

Siv Sundaram, P.E.
Environmental Programs Division Engineer

SS/TV/CPY

Enclosures: Location Map, Copy of Statute 69-702
Copy to: Project Management Division; Field Division Engineer; Survey Division; Materials Division; Right of-Way Division; ODOT Cultural Resources; Tribal Coordination; Specialists

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Oklahoma Field Office
201 Stephenson Parkway, Suite 1200
Norman, Oklahoma 73072-2037
www.blm.gov/nm

In Reply Refer To:
ODOT Proj Resp 190822a
1785

August 22, 2019

Mr. Siv Sundaram, P.E.
Environmental Programs Division Engineer
Oklahoma Department of Transportation
200 NE 21st Street
Oklahoma City, OK 73105-3204

Dear Mr. Sundaram:

Thank you for extending the opportunity to the Bureau of Land Management (BLM) Oklahoma Field Office to provide comments on the following proposed project:

Muskogee County
SH-100 bridge replacement over the Arkansas River at the Muskogee/Sequoyah County Line. Job Piece No. 32100(04), Project No. J3-2100(004).

Our office has reviewed the information provided in your July 23, 2019 letter. A search of our files shows there are no BLM surface lands or Federal minerals within or near the project area. There are no BLM administered Indian mineral interests near or within the project area. Therefore, the BLM has no concerns or objection to the proposal.

Sincerely,

John Ledbetter
Realty Specialist
Oklahoma Field Office

cc:
NM (04410, Central File)

RECEIVED
AUG 24 2019
ENVIRONMENTAL PROGRAMS
ODOT

OKLAHOMA DEPARTMENT OF TRANSPORTATION

Environmental Programs Division
200 N.E. 21st Street
Oklahoma City, OK 73105-3204
www.odot.org

July 23, 2019

Mr. John Ledbetter
Realty Specialist – Oklahoma Field Office
Bureau of Land Management
201 Stephenson Parkway, Suite 1200
Norman, Oklahoma 73072-2037

Subject: SH-100: Bridge over the Arkansas River at the Muskogee/Sequoyah County Line, Muskogee County, Job Piece Number 32100(04), Project Number J3-2100(004)

Dear Mr. Ledbetter:

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 bridge over the Arkansas River between Webbers Falls and Gore in Muskogee and Sequoyah Counties. The project is scheduled for 2023 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 safety. 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 N. E. 21st Street, Oklahoma City, Oklahoma 73105 or emailed to environment@odot.org.

We sincerely appreciate your cooperation in this matter. For further information or if you have any questions, please contact our authorized agent, Scott Stegmann with CP&Y at 405-835-2836 or sstegmann@cpyi.com.

Respectfully,

Siv Sundaram, P.E.
Environmental Programs Division Engineer

SS/TV/CPY

Enclosures: Location Map, Study Area Map

Copy to: Project Management Division
Field Division Engineer
Right-of-Way Division
ODOT Cultural Resources

United States Department of the Interior
BUREAU OF INDIAN AFFAIRS
Eastern Oklahoma Region
Eastern Oklahoma Regional Office
P.O. Box 8002
Muskogee, OK 74402-8002

IN REPLY REFER TO:

Division of Environmental and
Cultural Resources Management

AUG 0 7 2019

Siv Sundaram, P.E.
Environmental Programs Division Engineer
Oklahoma Department of Transportation
200 N.E. 21st Street
Oklahoma City, OK 73105

Dear Ms. Sundaram:

On August 6, 2019, the Bureau of Indian Affairs (BIA), Eastern Oklahoma Regional Office, received solicitation for information or comments from the Oklahoma Department of Transportation (ODOT), concerning SH-100 Bridge over the Arkansas River at the Muskogee/Sequoyah County Line in Muskogee County, Oklahoma. This office has no comments regarding the project at this time.

Five Federally recognized Tribes have been provided the notice by copy of this letter. As the Tribes may have environmental and/or cultural resources concerns relating to this action, it is recommended that ODOT coordinate directly with the Tribes on any of their concerns. The contact addresses are enclosed.

If additional information is required, please contact Mr. Mosby Halterman, Division Chief, Division of Environmental and Cultural Resources Management, at (918) 781-4660.

Respectfully,

Regional Director

Enclosure

cc: Cherokee Nation, Delaware Tribe of Indians
United Keetoowah Band of Cherokee Indians,
Shawnee Tribe, Osage Nation

OKLAHOMA DEPARTMENT OF TRANSPORTATION

Environmental Programs Division
200 N.E. 21st Street
Oklahoma City, OK 73105-3204
www.odot.org

July 23, 2019

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

Subject: SH-100: Bridge over the Arkansas River at the Muskogee/Sequoyah County Line, Muskogee County, Job Piece Number 32100(04), Project Number J3-2100(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 bridge over the Arkansas River between Webbers Falls and Gore in Muskogee and Sequoyah Counties. The project is scheduled for 2023 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 safety. 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 N. E. 21st Street, Oklahoma City, Oklahoma 73105 or emailed to environment@odot.org .

We sincerely appreciate your cooperation in this matter. For further information or if you have any questions, please contact our authorized agent, Scott Stegmann with CP&Y at 405-835-2836 or sstegmann@cpyi.com .

Respectfully,

Siv Sundaram, P.E.
Environmental Programs Division Engineer

SS/TV/CPY

Enclosures: Location Map, Study Area Map

Copy to: Project Management Division
Field Division Engineer
Right-of-Way Division
ODOT Cultural Resources

Elizabeth Toombs
THPO, Cherokee Nation
P.O. Box 948
Tahlequah, OK 74465
Phone: (918) 456-0671
Fax: (918) 458-5580

Joe Bunch, Chief
United Keetoowah Band of Cherokee Indians in Oklahoma
P.O. Box 746
Tahlequah, OK 74465
Phone: (918) 431-1818
Fax: (918) 431-1873

Chester L. Brooks, Chief
Delaware Tribe of Indians
5100 Tuxedo Blvd.
Bartlesville, OK 74006-2838
Phone: (918) 337-6590
Fax: (918) 337-6591

Ron Sparkman, Chief
Shawnee Tribe
P.O. Box 189
Miami, OK 74354
Phone: (918) 542-2441
Fax: (918) 542-2922

Dr. Andrea Hunter
THPO, Osage Nation
627 Grandview Avenue
Pawhuska, OK 74056
Phone: (918) 287-5432
Fax: (918) 287-2257

RELOCATIONS (N/A)

AND

ENVRIONMENTAL JUSTICE

Environmental Programs Division Office 405 521-3050

Community Impacts Assessment Form

Job Piece #:	**32100(04)**
County:	**Muskogee and Sequoyah Counties**
Project Description:	**Bridge over Arkansas River at the Muskogee/Sequoyah C/L**
Preparer:	**Jeffrey Rivas**

PART I: COMMUNITY PROFILE

Attach a map showing the community study area boundaries as well as the locations of any community facilities in the area (schools, places of worship, health care facilities, recreation centers, social services, libraries, etc.).

I. General Information

What is the location of the community that may be impacted?

The proposed project is a bridge replacement over the Arkansas River located in eastern Oklahoma. The existing (and proposed) bridge connects the towns of Webbers Falls and Gore. The town of Webbers Falls is located in Muskogee County while Gore is located in Sequoyah County. The project falls at the county line and is located within both counties.

II. General Characteristics of the Community

What is the name and general character of the community (rural, suburban, urban, mixed use)?

The study area is generally rural with scattered residences but encompasses two towns: Webbers Falls and Gore. Webbers Falls has mostly residential land use. Gore is also mostly residential but has more commercial land use than Webbers Falls.

III. Community Facilities

Show location of facilities on attached map.

Name of Facility	Type of Facility	Public or Private	Population Served	Additional Comments
Webbers Falls City Park	Recreational	Public	Area residents	Webbers Falls, OK 74470

Name of Facility	Type of Facility	Public or Private	Population Served	Additional Comments
Webbers Falls Municipal Complex	Civic	Public	Area residents	212 OK-100, Webbers Falls, OK 74470
First Assembly of God	Religious	Private	Area residents	OK-100, Webbers Falls, OK 74470
National Trail of Tears Association	Cultural, Non-profit organization	Private	Area residents	Not able to verify in field
First Baptist Church	Religious	Private	Area residents	120 McCorkle St, Webbers Falls, OK 74470
One to Another (Webbers Falls Clothes Closet)	Community facility; Non-profit organization	Private	Low-income Area residents	A part of First Baptist Church in Webbers Falls, OK 74470
Webbers Falls Mason Lodge	Fraternal	Private	Masons	Main Street in Webbers Falls, OK 74470
St. Joseph Catholic Church	Religious	Private	Area residents	N Smith Street in Webbers Falls, OK 74470
Webbers Falls Museum	Cultural	Private	Area residents	Main Street in Webbers Falls, OK 74470
United States Postal Service	Civic	Public	Area residents	116 Commercial St, Webbers Falls, OK 74470
Webbers Falls Volunteer Fire Department	Civic	Public	Area residents	Not able to verify in field
Webbers Falls Historical Society	Cultural	Private	Area residents	Not able to verify in field
Webbers Falls Expo Center	Community facility	Public	Area residents	W Commercial Street in Webbers Falls, OK 74470
Webbers Falls Elementary School	Educational	Public	Children in the area	200 S Stand Watie Blvd, Webbers Falls, OK 74470
Webbers Falls High School	Educational	Public	Area youth	200 S Stand Watie Blvd, Webbers Falls, OK 74470
Webbers Falls Head Start	Educational	Public	Children in the area	4th Street in Webbers Falls, OK 74470
Eual Carter Sports Complex	Recreational	Public	Area residents	W Smith Street in Webbers Falls, OK 74470
Town of Gore Police and Fire Department	Civic	Public	Area residents	1201 N Main St, Gore, OK 74435
Lil' Pirates Learning Center	Education	Private	Children in the area	N Main Street in Gore, OK 74435
Assembly of God	Religious	Private	Area residents	E Red Bud Lane in Gore, OK 74435

Name of Facility	Type of Facility	Public or Private	Population Served	Additional Comments
Eastern Oklahoma Medical Consultants	Community Facility	Private	Area Residents	700 N Main St, Gore, OK 74435
Harps Food Stores	Community Facility	Private	Area residents	603 N Main St, Gore, OK 74435. Included as a community facility because it offers essential items to residents in both communities as a full-service grocery store
Ray Fine Park	Recreational	Public	Area residents	305 Ray Fine Dr, Gore, OK 74435
Gore Elementary School	Education	Public	Children in the area	E 4th Street and Winn St in Gore, OK 74435
Gore United Methodist Church	Religious	Private	Area residents	E 4th St & Winn St, Gore, OK 74435
Gore Drug	Community Facility	Private	Area residents	305 N Main St, Gore, OK 74435
United States Postal Service	Civic	Public	Area residents	402 N Main St, Gore, OK 74435
Baseball Fields	Recreational	Public	Area residents	Part of Gore Elementary School. N Main Street in Gore, OK 74435
First Baptist Church	Religious	Private	Area residents	106 E 5th St, Gore, OK 74435
Cornerstone Tabernacle	Religious	Private	Area residents	401 8th St, Gore, OK 74435
Town of Gore Public Works Utility	Civic	Public	Area residents	8th Street in Gore, OK 74435
Gore Municipal Complex and Tourism Center	Civic	Public	Area residents and tourists	201 S Main St, Gore, OK 74435
Lighthouse Tabernacle Church	Religious	Private	Area residents	300 Campbell St, Gore, OK 74435
Gore Nursing Center	Institutional	Private	Seniors	503 S Main St, Gore, OK 74435
Gore Cemetery	Civic	Public	Area residents	SH-100 in Gore, OK 74435
Summers Ferry Park	Recreational	Public	Area residents	801 S Main St, Gore, OK 74435

Name of Facility	Type of Facility	Public or Private	Population Served	Additional Comments
Gore Community and Senior Citizens Center	Institutional	Public	Seniors	313 Steve Owens Rd, Gore, OK 74435
Steve Owens Sports Complex	Recreational	Public	Area residents	329 Steve Owens Rd, Gore, OK 74435
The Crossing Church	Religious	Private	Area residents	446011 US-64, Gore, OK 74435
Electric Substation	Civic	Private	Area residents	SH-10 east of Gore, OK 74435

IV. Data

Attach or insert tables and thematic maps detailing race, language, income, gender, and age data for the affected community study areas.

a. What data sources were used (U.S. Census Bureau, EPA Screening Tool, American Community Survey (ACS), Other)?

US Census Bureau, ACS, Google Earth, Google Maps, Google Street View, historicaerials.com, Wikipedia, Town of Gore website, Strava heatmaps, site visit conducted May 26 – 27, 2021.

b. Does any of the census geographies show a median income below the DHHS poverty level? Describe:

One of the block groups (block group 3 of census tract 302.02 in Sequoyah County) in the study area has a median household income of $20,380, which is below the 2021 DHHS poverty level for a family of four, which is $26,500.

c. Does any of the census geographies show a minority population? Describe:

Yes, there are 105 census blocks that are located within or intersect the study area. Of those, 60 census blocks are populated. Of the 60 populated census blocks, 50 contain minority populations. The largest individual minority group in the study area is American Indian and Alaska Native, with a total of 226 individuals. Two readily identifiable groups of minority persons exist within the study area in the town of Gore. The groups were identified to encompass blocks with large minority populations and adjacent blocks where when combined with the larger blocks, were reasonably part of a readily identifiable group. Both groups reside in census tract 302.02 in Sequoyah County. One group consists of census blocks 2079 (minority population: 20) and 2108 (minority population: 22) in block group 2. The other consists of blocks 3052 (minority population: 30), 3063 (minority population: 20), 3081 (minority population: 35) in block group 3 and three blocks in block group 2 with total minority populations that are heavily composed by American Indians and Alaskan Natives: 2092 (80% American Indian and Alaskan Native), 2107 (100% American Indian and Alaskan Native), 2109 (91% American Indian

and Alaskan Native). American Indian and Alaskan Natives compose the largest individual minority groups in all blocks of the readily identified groups. Apart from blocks 2108 and 3081, the blocks are not predominantly minority. While there are other blocks within the study area that contain similar minority population sizes, they are not adjacent to blocks with significant minority population sizes or adjacent to several blocks with smaller populations; and therefore, do not constitute a readily identifiable group. To see the breakdown of individual minority populations for these blocks, or for more information about how the population is dispersed throughout the study area, please see Attachment 3 – Census Geographies Map and Attachment 5 – Race and Ethnicity by Census Block, 2020.

d. Does any of the census geographies show presence of persons who speak English "less than very well"?

Yes, all block groups show a presence of persons who speak English “less than very well.” The LEP population makes up only 1% of the total population. Of that 1%, other language speakers comprise the majority of the LEP population at 46%, followed by Indo-European language speakers (20%), Spanish speakers (17%), and Asian and Pacific Island language speakers (17%).

V. Site Visit

Information can be requested in the Relocation Plans or found through Google Street View if no site visit is performed.

a. Was a site visit conducted? If yes, attach documentation, notes, and photographs from the field visit. If no, explain why.

A site visit was conducted from May 26 to May 27 of 2021.

b. Were there any signs observed in languages other than English? *Describe the languages(s) observed, frequency, and general location of signs in other languages (throughout the study area, concentrated in a particular vicinity, etc.)*

Yes, there are street signs in Webbers Falls that display two languages: English and Cherokee languages.

c. Were there places of worship, businesses, or services that target or serve specific minority groups?

The National Trails of Tears Association is a non-profit organization whose mission is to identify, protect, and preserve the Trail of Tears National Historic Trail and promote awareness of the Trail’s legacy, including removal stories of the Cherokee, Chickasaw, Choctaw, Muscogee (Creek), and Seminole tribes. The location of this organization was not verified in the field.

d. Were there signs of disabled persons such as ramps on homes or public transportation vehicles or stops specifically designed for disabled persons?

   Yes, several homes in the study area have ramps. Examples of this can be found in photos 11-13 in Attachment 13, Project Area Photographs.

e. Were there signs of other vulnerable populations such as children or elderly *(presence of day cares, elementary schools or assisted living facilities? (EJSCREEN, the EPA's environmental justice screening and mapping tool, can assist in locating facilities. This tool can be found at https://www.epa.gov/environmentaljustice or https://www.epa.gov/ejscreen)*

   Yes, there is a Head Start program, Webbers Falls Elementary School, and the Lil' Pirates daycare in Webbers Falls and Gore Elementary School in Gore. Additionally, two institutions that serve seniors are located in the study area: Gore Community and Senior Citizens' Center and Gore Nursing Center.

f. Are there signs of other modes of transportation? Describe:

   i. Bus or train stops

      No bus or train stops were observed within the study area.

   ii. Marked bike lanes or bike signage

      Marked bike lanes and corresponding signage were not observed within the study area.

   iii. Cyclists observed in the area

      Yes, a cyclist was observed using the SH-100 shoulder in Gore during the site visit. See photo 39: A person on a bike on the SH-100 shoulder in Gore.

   iv. Sidewalks

      Sidewalks are located on the west side of Main Street north of N Railroad Street in Gore. Sidewalks are not present elsewhere in the study area.

   v. "Goat paths" or dirt pathways adjacent to the project area

      There were no goat paths or dirt pathways observed adjacent to the project area.

VI. Additional Data

Describe any additional information about this community:

The town of Gore is larger than Webbers Falls and has more amenities such as a full-service grocery store, restaurants, and senior centers. Travel times from Webbers Falls to surrounding towns, such as Vian (18 minutes) and Warner (15 minutes), are similar to expected travel times to Gore while the proposed detour route is in effect (15 minutes). Similar services can be found in these towns; therefore, it is possible that Webbers Falls residents would travel to these communities for services instead of Gore since travel times would be similar.

Community Profile Summary: Based on the information above, describe the community profile. *NOTE: This summary should be included in the NEPA write up.*

The study area is predominantly rural with the exception of the towns of Gore and Webbers Falls. The areas outside the town limits include only scattered residences. Webbers Falls and Gore have mostly residential land use; however, Gore has some commercial land uses. Webbers Falls does not have many essential service facilities such as full-service grocery stores and medical facilities, but Gore does. All block groups in the study area have a presence of persons who speak English "less than very well". The LEP population makes up only 1% of the total population. Minority populations are present in 50 of the 60 populated census blocks located in the study area. American Indian and Alaska Natives are the largest individual minority group in the study area with a total of 226 individuals.

Two readily identifiable groups of minority persons exist within the study area in the town of Gore. Both groups reside in census tract 302.02 in Sequoyah County. One of the groups consists of census blocks 2079 (minority population: 20) and 2108 (minority population: 22) in block group 2 and the other consists of blocks 3052 (minority population: 30), 3063 (minority population: 20) and 3081 (minority population: 35) in block group 3 and three blocks in block group 2 with total minority populations that are heavily composed by American Indians and Alaskan Natives: 2092 (80% American Indian and Alaskan Native), 2107 (100% American Indian and Alaskan Native), 2109 (91% American Indian and Alaskan Native).

American Indian and Alaskan Natives compose the largest individual minority groups in the readily identifiable groups. There are indications that people with disabilities live in the study area, as evidenced by ramps on homes in the study area. Other vulnerable populations live in the study area, such as elderly populations and children.

PART II: RISK ASSESSMENT

Consider the community facilities and populations other than EJ populations listed in your Community Profile answers. Information will be available in Relocation Plans.

I. Residential Displacements

What type of residences will be displaced (single family homes, apartment, duplexes, etc.)?

No residences will be displaced as a result of the proposed project.

a. How many residences will be displaced or impacted in a manner that would prevent them from being occupied *(loss of parking or access)*?

No residences would be displaced as a result of the proposed project.

b. Is there comparable replacement housing available? Explain.

N/A

II. Commercial Displacements

a. What types of businesses exist in the study area?

Several restaurants and fast-food stores operate in the area, as well as a few retail and grocery stores. Two gas stations also exist in the study area.

b. How many businesses will be displaced or impacted in a manner that would prevent them from continuing to operate *(loss of parking or access)*?

N/A

c. Are these businesses unique to the area? How far away would one have to travel to find a similar business offering similar services?

N/A

d. Do these businesses serve a specific population *(specific ethnic group, disabled, low-income families, etc.)*? Explain.

N/A

e. Have the businesses indicated if they would relocate? Explain.

N/A

f. Are there comparable replacement properties available for relocation of the business(es)? Explain.

N/A

g. If the businesses do not relocate, how many jobs would be lost?

N/A

h. If the businesses do not relocate, are there comparable job opportunities for the affected employees?

N/A

i. What is the unemployment rate for the study area?

The unemployment rate for the study area is 4%.

j. If the businesses do not relocate or current employees do not remain with the employer, would there be similar jobs *(same industry, equivalent skill set, etc.)* available nearby? Explain.

N/A

k. Are there any measures which could be taken to mitigate the potential loss of employment opportunity? Explain.

N/A

III. Other Displacements

a. What non-residential and non-commercial displacements *(parks, homeless shelters, churches, etc.)* would occur?

No non-residential or non-commercial displacements would occur as a result of the proposed project.

b. Do these facilities serve a specific population *(disabled persons, children, elderly, a specific ethnic group, a specific religious denomination, etc.)*? Explain.

N/A

c. Would these facilities be able to relocate? Explain.

N/A

d. How far would a person have to travel to find similar facilities or services?

N/A

e. Is there any opportunity to mitigate the impact to the facilities? Explain.

N/A

Displacements Summary: Based on the information above, how will displacements associated with the proposed project impact the community? *NOTE: This summary should be included in the NEPA write up.*

No displacements would occur as a result of the proposed project.

IV. Access and Travel Patterns

a. How do people currently access adjacent parcels *(car, walking, cycling, mass transit)*?

Generally, people use cars for travel within the study area. Two transit providers exist in the study area: KiBois Area Transit System (KATS) and Muskogee County Public Transit Authority. Muskogee County Public Transit operates only within Muskogee County and therefore does not use the bridge. The KATS system is a curb to curb service that transports passengers from Sequoyah County into Muskogee County only for SoonerCare appointments but does not offer service from Muskogee County. SoonerCare is a federal and state funded health coverage program. A few public comments suggest that people walk across the bridge from Webbers Falls to Gore to access facilities and services, such as grocery stores, health services, and places of employment.

An analysis of the study area included the use of Strava heatmaps. Strava is an app used by cyclists and runners/walkers to record commutes and recreational activities. The individual data from these activities are agglomerated to create a heatmap that shows roads that are used for commuting or exercising. The analysis showed that SH-100 north of Red Bud Lane and US 64 east of SH-100 are extensively used by area cyclists. Only some cyclist activity is observed on the SH-100 bridge.

b. Describe the permanent or temporary changes to access and/or travel patterns.

The SH-100 bridge over the Arkansas River would be closed during the construction of the project, which is expected to take two years. The bridge connects two towns: Webbers Falls in Muskogee County and Gore in Sequoyah County. As a result of the bridge closure, people would have to follow a detour route which follows SH-100 south to I-40 then north on SH-10 and US-64 since there are no other local roadways that cross the Arkansas River. Total travel time between Webbers Falls and Gore using the alternative route on I-40 is estimated at 15 minutes (approximately 10 miles one-way), which is an additional 10 minutes one-way compared to travel time using the existing SH-100 bridge.

c. What neighborhoods and businesses will be affected by these changes?

Webbers Falls would be more affected than Gore. Gore has more facilities and services than Webbers Falls. Residents of Webbers Falls would have a longer distance to travel to reach some of the amenities found in Gore. Some Webbers Falls residents may travel to Warner (15-minute travel time) or Vian (18-minute travel time) for services and amenities such as grocery stores and restaurants, and other shopping since travel times would be similar. Some Webbers Falls residents could travel to other communities within Muskogee County for doctors' offices, and dentist offices instead of Gore if they rely on the transit services in the county, however, the majority of residents would likely retain these types of established services utilizing the detour to Gore. Overall, some businesses in Gore may be affected by the bridge closure and could experience decreased traffic. These effects would be temporary during the construction phase and travel patterns and access would return to existing conditions after completion of the project.

d. Are there any community facilities affected? Are any of these facilities considered essential services *(clinics and hospitals, schools, emergency responders)*?

Although facilities in Gore and Webbers Falls would continue to serve their respective local communities, many facilities could be affected by the bridge closure as increase travel times would make them less convenient to access. There are no health services in Webbers Falls. Public comments mention that Webbers Falls residents travel to Gore for these services. Dental offices, pharmacies, and doctors' offices are found in Gore but not in Webbers Falls.

e. How will emergency response times be effected?

Webbers Falls and Gore both have dedicated police and fire departments. Although response times within the respective towns would not be adversely affected, the fire departments mutually aid each other and would have to use the detour route, which adds ten minutes of travel time between the two towns one-way. The closest hospital to the study area is found in Sallisaw, approximately 20 miles east of the proposed project. Gore residents would not experience an increase in travel time to this hospital as a result of the project. Travel time to the hospital from Webbers Falls using the existing bridge and the detour route would also generally be the same. While not included in the study area, the eastern portion of Muskogee County is located on the eastern side of the Arkansas River. Fire departments and the Muskogee county law enforcement would need to take the detour route or the US-62 bridge in the City of Muskogee to get to the eastern portion of Muskogee County. Therefore, response times would increase for that portion of Muskogee County.

f. For mass transit, walking, and cycling impacts, which mode(s) will be permanently impacted?

What appears to be a sidewalk on the existing structure is functionally considered the shoulder but community residents use it as a walkway. There are no adjoining sidewalks

on either side of the bridge. The proposed bridge does not include pedestrian or bike-specific infrastructure; however, cyclists could potentially use the bridge's proposed 8-ft shoulder if needed. Deflection of the structure from passing large trucks would make pedestrian travel prohibitive. Muskogee County Public Transit operates only within Muskogee County and therefore does not use the bridge. The KATS system is a curb to curb service that transports passengers from Sequoyah County into Muskogee County. The service would need to find a detour route into Muskogee County during construction of the proposed project but would not be permanently affected as it would resume use of the bridge upon project completion.

g. How far will the user of each mode have to travel to find a comparable route/service? How much time will be added to their trips?

Motorists have a viable alternative route to/from Webbers Falls/Gore using I-40 during the construction of the proposed project. Motorists would retain bridge functionality after completion of the project. Walking and cycling would likely not be possible during the construction period as the alternative route does not have infrastructure for these modes and travel time would be too long. The proposed bridge does not include pedestrian or bike-specific infrastructure; however, cyclists could potentially use the bridge's shoulder if needed. However, deflection of the structure from passing large trucks would make pedestrian travel prohibitive.

h. What businesses are located along the existing corridor? Of these, how many are primarily dependent on passing traffic for business.

One business is found adjacent to the project area: Consolidated Terminals and Logistics Company. The business is not primarily dependent on passing traffic for business. Based on public comments received from the open house, the study area undergoes a tourist season, most likely associated with Tenkiller Ferry Lake, located approximately eight miles northeast of the two towns. The main route to the lake consists of travel on SH-100 through Webbers Falls and Gore. Therefore, it is likely that restaurants and shops adjacent to SH-100 benefit from increased traffic through the tourist season. Travelers following the detour to the lake would no longer pass through Webbers Falls; however, there are no traffic dependent business in Webbers Falls that would be affected. In Gore, a Sonic drive-through and a Valero gas station are traffic dependent but are still on the detour route to the lake. Therefore, the two locations should not be negatively affected by the proposed project unless travelers take a different route.

While not adjacent to the proposed project, Harps Grocery Store in Gore is an essential business because it serves an important function in the area. The route to Harps from Webbers Falls would be temporarily affected while the SH-100 bridge is closed for construction. As mentioned in public comments, other essential service locations that would be impacted as a result of the closed bridge would include doctors' offices and pharmacies. Businesses that fall into these categories include Eastern Oklahoma Medical Consultants and Gore Drug. While not adjacent to the project, these two businesses serve important functions for the communities and additional travel time due to the

detour would make traveling to them less convenient throughout the construction period of the project.

i. Are frontage roads proposed as part of the project or is the project a limited access facility? Describe.

Frontage roads are not proposed as part of the project. This project is not currently a limited access facility and is not proposed to become one.

j. Is the land adjacent to the project available for development? Describe.

There is some land adjacent to the project that is available for development. This land is currently farmland. Most of the project area consists of the bridge over the Arkansas River and is therefore not available for development.

k. Is there mitigation or design elements proposed for impacts to affected businesses?

There are no known mitigation or design elements proposed for impacts to existing traffic-dependent businesses. Signage stating that businesses are open and signage directing traffic to alternative routes could mitigate these impacts.

Access and Travel Patterns Summary: Based on the information above, how will the proposed project impact access and travel patterns for the community? *NOTE: This summary should be included in the NEPA write up.*

The bridge over the Arkansas River would be closed during the construction of the project, which is expected to take two years. The bridge connects two towns: Webbers Falls in Muskogee County and Gore in Sequoyah County. As a result of the bridge closure, people would have to take a detour route which follows SH-100 south to I-40 then north on SH-10 and US-64. Total travel time between Webbers Falls and Gore using the alternative route on I-40 is estimated at 15 minutes (10 miles one-way), which is an additional 10 minutes compared to travel time using the SH-100 bridge.

A few public comments suggest that people walk across the bridge to Gore to access facilities and services, such as grocery stores, health services, and places of employment. During construction, these transportation methods would not be available, and existing raised shoulders that are used by pedestrians would not be replaced by a sidewalk. There would be no pedestrian access during construction and post-construction; it is assumed those who currently use the bridge would likely resume using it at their own risk once the project is complete. Census data from the area indicates that a very low percentage (1.0-2.0%) of people walk or bike to their place of employment.

Motorists have a viable alternative route to/from Webbers Falls/Gore using I-40 during the construction of the proposed project. Motorists would retain bridge functionality after completion of the project.

Overall, there are many community facilities that would be affected by the bridge closure as increased travel times would make them less convenient to access for travelers between Webbers Falls and Gore. Access would return to normal after the completion of the project.

V. Community Cohesion

a. If there is an existing roadway or other existing separation? How will the proposed project change that separation?

The Arkansas River creates a natural separation in the study area. Although Gore and Webbers Falls are two separate communities separated by the river, the two communities have been connected by the existing bridge since its construction. People of Webbers Falls often rely on services in Gore such as grocery stores and healthcare as these services are not located in Webbers Falls. During construction, the proposed project would make it more challenging for Webbers Falls residents to access Gore and vice versa because the bridge would be demolished and closed for the duration of construction. Total travel time between Webbers Falls and Gore using the alternative route on I-40 is estimated at 15 minutes (approximately 10 miles one-way), which is an additional 10 minutes compared to travel time using the SH-100 bridge.

b. How would the proposed project change the way that people within the community access other parts of the community and participate in local activities?

The proposed project would make it more challenging for Webbers Falls residents to access Gore and vice versa. The proposed project is estimated to have a construction time of two years. It is possible that people within the community would participate less in activities across the two towns during this time.

c. How will the proposed project change the way that people use local services and facilities?

During construction, the existing bridge between Webbers Falls and Gore would be closed. Total travel time between Webbers Falls and Gore using the alternative route on I-40 is estimated at 15 minutes, which is an additional 10 minutes compared to travel time using the SH-100 bridge. In 15 minutes of travel time, Webbers Falls residents can also access the towns of Warner or Vian. Warner is located approximately 10 miles west of Webbers Falls and Vian is approximately 13 miles east along I-40. Both are larger and have similar services and facilities as Gore. It is possible that some Webbers Falls residents may choose to travel to Warner or Vian for services and facilities instead of Gore.

d. Describe how people in the community will be separated or isolated.

During construction, the existing bridge between Webbers Falls and Gore would be closed. This would likely affect residents of Webbers Falls more than it would affect residents of Gore. Gore has services and facilities that Webbers Falls does not. For

example, there are no health services or full-service grocery stores in Webbers Falls. Public comments mention that Webbers Falls residents travel to Gore for these services.

Webbers Falls residents would not have direct access to these facilities for the duration of the construction of the proposed project.

e. How will the separated portions of the community access one another after completion of the proposed project? Consider all modes of transportation.

After completion of the proposed project, access between Gore and Webbers Falls would return to pre-construction conditions. The proposed project provides facilities only for vehicles; however, cyclists could use the 8-foot-wide shoulders if needed. No sidewalks are proposed for this project. Two transit systems operate in the study area, KiBois Area Transit System and Muskogee County Public Transit Authority. Muskogee County Public Transit operates only within Muskogee County and therefore does not use the bridge. The KATS system is a curb to curb service that transports passengers from Sequoyah County into Muskogee County and would resume the use of the bridge after completion of the proposed project.

f. How will the affected people in the community access services like grocery stores, schools, parks, neighborhood amenities, places of employment, etc.? Consider all modes of transportation.

Both Webbers Falls and Gore would not have direct access to one another for the duration of construction as the bridge would be closed during that time. A detour route is proposed between the two towns but would increase travel times by about 10 minutes. Gore has more services and facilities than Webbers Falls. Webbers Falls would not have convenient direct access to the services and facilities, including full-service grocery stores, health services, and places of employment during construction.

g. How is the proposed access different from the existing access? Consider all modes of transportation.

Access across the river between Webbers Falls and Gore would be eliminated for all users during the estimated 2-year construction phase of the proposed project. Travelers between Webbers Falls and Gore would need to travel about 15 minutes (10 miles) using the detour route on I-40 during that time. Once the project is complete access across the Arkansas River would be restored. Residents currently use the raised shoulder that appears to be a sidewalk to walk across the bridge. The proposed bridge would not include bike/pedestrian facilities but would have a wider shoulder. Pedestrian travel would be prohibitive due to deflection of the structure when large trucks are passing. Transit services in the area do not use the bridge and would not be affected.

h. Would displacements impact community cohesion? Explain.

No displacements would occur as a result of the proposed project.

i. Is there any mitigation or design elements proposed to lessen the effects of this separation or isolation?

Construction methods that would minimize construction time would be implemented.

Community Cohesion Summary: Based on the information above, how will the proposed project impact community cohesion? *NOTE: This summary should be included in the NEPA write up.*

Community cohesion would be altered between the two towns during construction of this project; however, community cohesion within each town would not be affected. The towns would temporarily not have direct access to one another. Webbers Falls would not have convenient direct access for all modes of travel to services and facilities found in Gore, including a full-service grocery store, health services, and places of employment during the construction of the project. There are no full-service grocery stores or health services within Webbers Falls, but there is a convenience store (Love's Truck Stop), which has basic grocery items, located at the intersection of SH-100 and I-40, approximately 2 miles south of town. However, a detour route using I-40 would maintain access between the two communities but would add approximately 10 minutes of driving time one-way. Based on comments received during the public meeting, there are people who walk across the existing bridge. However, what appears to be (and is used as) a sidewalk is functionally a shoulder. The proposed project does not include bike or pedestrian facilities. It is possible that some Webbers Falls residents may travel to the nearby communities of Warner or Vian for services and facilities instead of Gore. It worth noting that both communities are located in rural eastern Oklahoma, and residents are accustomed to driving to neighboring communities, sometimes as far as Checotah, OK (25 miles west), or Sallisaw, OK (25 miles east) for more specialized or full services. Access and community cohesion would be restored after completion of the proposed project.

PART III: ANALYZE IMPACTS ON ENVIRONMENTAL JUSTICE POPULATION

I. Negative Impacts

a. Will there be displacements? How many are in predominantly minority and/or low income census geographies versus non-minority and non-low income geographies?

No displacements will occur as a result of the proposed project.

b. Will there be access and travel pattern impacts? What types of impacts are in predominantly minority and/or low income census geographies versus non-minority and non-low income geographies?

Negative impacts would be experienced during the construction phase with the bridge closure. There is one block group in the study area with a median household income below the 2021 poverty level and all block groups show a presence of households below the poverty level. There are several blocks with predominately minority populations. Access and travel pattern changes are anticipated to affect both EJ and non-EJ communities since everyone would have to utilize detours to reach their destinations

for the duration of construction of the new proposed bridge (estimated to be completed in two years). However, it is likely that low-income EJ populations would be affected to a higher degree if they were required to use the detour. There is one low-income block group located in Gore. However, since essential services exist within this community, the low-income EJ population would not lose access to community facilities within Gore or to essential services such as healthcare or grocery stores. One of the public commenters who referred to themselves as low-income mentioned that the cost of gas for transportation during the construction period would be a hardship. EJ populations may find more difficulty in paying for additional gas to access amenities during construction compared to someone who is not low-income.

c. Will there be community cohesion impacts? What types of impacts are in predominantly minority and/or low income census geographies versus non-minority and non-low income geographies?

The bridge would be closed during the construction phase of this project. There is one block group in the study area with a median household income below the 2021 poverty level and all block groups show a presence of households below the poverty level. Additionally, there are several blocks that are predominately minority. Previous public comments have stated that it would be difficult for low-income individuals to travel for essential goods and services as a result of the temporary bridge closure. Although Gore and Webbers Falls are two separate communities separated by the Arkansas River, the two communities have been connected by the existing bridge since its construction. People of Webbers Falls often rely on services in Gore such as grocery stores and healthcare as these services are not located in Webbers Falls. However, the low-income EJ block group is located in Gore, and access to essential services within town would not be affected. It is likely that community cohesion in the study area would temporarily suffer as a result of the proposed project due to extended travel times between Webbers Falls and Gore, particularly for residents of Webbers Falls, who rely on services such as healthcare and grocery stores in Gore. It is possible that people within the community would participate less in activities across the two towns. However, it is noteworthy that both communities are rural in nature, and residents are likely accustomed to traveling for specialized services and functions. Community cohesion impacts would not be experienced by each individual town.

d. Will the community experience any negative impacts to air quality or water quality from increased noise level or from hazardous materials?

Erosion and sediment control best management practices will be used during construction to minimize the potential for impacts to the Arkansas River. No negative impacts to air quality are anticipated as a result of the project and any water impacts will be minimized.

e. What types of impacts are in predominately minority and/or low income census geographies versus non-minority and non-low-income census geographies?

Temporary access and travel pattern changes are anticipated to affect both EJ and non-EJ communities since everyone in Webbers Falls and Gore would need to follow detours

to reach their destinations usually accessed via the SH-100 bridge for the duration of construction. However, it is likely that EJ populations would be affected by taking the detour to a higher degree if they are low-income individuals as they may be more likely to use other modes of travel than motor vehicles for travel between the Gore and Webbers Falls. One of the public commenters who referred to themselves as low-income mentioned that the cost of gas for transportation during the construction period would be a hardship. During construction only, EJ populations may also find it more difficult to pay for additional gas to travel farther to access their destinations than someone who is not low-income. The low-income EJ block group is located in Gore and access to most essential services would be retained. Because both of these communities are rural in nature, residents are likely accustomed to traveling for specialized services and functions. Additionally, these impacts would be temporary (during construction), and access would be restored once the new bridge is constructed. The proposed bridge does not include a sidewalk for pedestrians; however, it does include a wider shoulder, which cyclists and pedestrians could potentially utilize following completion of the proposed bridge. However, deflection of the structure from passing large trucks would make pedestrian travel prohibitive. There would essentially be no permanent change for travelers of these modes.

f. Has the community experienced substantial impacts from past transportation projects, such as a new roadway causing large number of displacements or introducing a barrier and separating parts of the community? Describe.

   Based on the earliest available (from historicaerials.com) aerial imagery dating to 1980, there have been no other substantial impacts to the community from other major projects. The current bridge was constructed in 1969, which likely replaced the first bridge built in 1923. Webbers Falls was rebuilt after a fire in 1911 but the majority of the town's population growth happened after 1980. Gore also suffered a fire through the business district in 1909 when it was known as Campbell. Imagery shows that development in the study area has not substantially changed since 1980.

g. Has the community experienced substantial impacts from any other major project, such as utilities, industry, etc.? Describe.

   The community has not experienced substantial impacts from any other major project, such as utilities, industries, etc. Imagery shows that the study area has not substantially changed since 1980.

h. Does the community have a negative perception of the project or impacts? Are these opinions of the affected EJ population?

   According to comments received during public involvement, the majority of the comments provided during the virtual public open house (VPOH) expressed support for the project but indicated concern over the impacts that would occur as a result of closing the bridge during construction. One commenter identified as low income and another expressed concern for the lower-income population traveling to Gore from Webbers Falls for food. It is not known whether the other comments reflect the opinions of affected EJ populations. The low-income block group is located in Gore and

access to essential services in town would not change for this EJ population. Other negative feedback included comments about impacts to tourism, small businesses and the towns' revenue streams, and impacts to pedestrians who use the bridge. The project would likely have a disproportionate effect on EJ populations particularly the low-income EJ population in Gore due to increased travel miles and time for travel to Webbers Falls or other destinations accessed via the SH-100 bridge. This impact would only be temporary during the construction phase.

II. Positive Impacts

a. Would the project add capacity? Explain.

No, the project would not add capacity. The bridge is being replaced to improve safety by addressing the narrow width and structural deficiencies of the existing bridge.

b. Does the project substantially increase access or mobility/travel patterns *(reduce travel times, create travel options, increase reliability, etc.)*? Explain.

No, the project does not substantially increase access or mobility. The bridge is being replaced to improve safety by addressing the narrow width and structural deficiencies of the existing bridge.

c. Does the project improve safety *(access management, intersection improvement, site distance, etc.)*? Explain.

Yes, the project improves safety. The bridge is being replaced to improve safety by addressing the narrow width and structural deficiencies of the existing bridge.

d. Does the project improve economic development?

No, the project does not improve economic development because it is only replacing an existing bridge. However, once completed, the replacement bridge would be an important piece of infrastructure that sustains the local economy and ensures that communities have a safe river crossing.

e. Does the community have a positive perception of the project or impacts? Are these opinions of the affected EJ population?

According to comments received during public involvement, the majority of the commenters expressed a positive perception of the project, revolving around safety for all users. It is unknown whether or not these commenters reflect the area's EJ population.

III. Mitigation Measures

a. Are there any design elements proposed to avoid impacts on the EJ population? Describe

Impacts to the population include temporary increased travel distances and increased travel time from Webbers Falls to essentials goods and services such as grocery stores, health services, and places of employment found in Gore while the project is in the construction phase (estimate to be 2 years). This temporary increase in travel distance could impact the EJ community by placing additional burden for fuel costs upon them. There could also be disproportionate impacts to low-income populations whose primary or only mode of travel is cycling or walking as they would no longer be able to cycle or walk safely between Webbers Falls and Gore or other destinations accessed via the SH-100 bridge. Incentives for early completion will be implemented to encourage contractor's to finish construction quicker and help alleviate the burden the additional travel time would have on low-income populations. Several design options are being discussed amongst the Oklahoma Department of Transportation (ODOT) and external agencies to determine the feasibility of decreasing the bridge's closure time. These include a method that sequences the construction of the new bridge foundations prior to removing the existing bridge, the preservation of existing side slopes to avoid park areas, and moving existing utilities in advance of construction of the proposed project.

b. Is there any mitigation proposed to specifically lessen the severity of these impacts on EJ populations? Describe.

No mitigation is proposed. Impacts would be temporary while the bridge is closed during construction. Readily identifiable minority populations are located in Gore and would not lose access to essential services.

c. If there are any impacts to minority or low-income populations, would these impacts still be considered disproportionately high and adverse compared to the non-EJ population after mitigation has been applied? Describe.

The closure of the bridge during construction would primarily impact those who use the SH-100 bridge by requiring travelers to use I-40 as a detour. This would disproportionately affect the low-income EJ population in Gore by placing an additional burden on fuel costs for increased travel time and distance if taking the detour is necessary or if their primary or only mode of transportation is bicycling or walking. However, these impacts would not be permanent and would phase out once construction is complete. Additionally, construction methods that minimize construction time would be implemented to reopen the bridge as quickly as possible. All measures to lessen the closure time will be implemented to the agency's ability. The impacts to the low-income EJ population would be disproportionate, but not disproportionately high because they would be temporary. Further, the readily identifiable low-income population is located in Gore and would therefore maintain existing levels of access to essential goods and services located in the town.

Analyze Impacts On Environmental Justice Population Summary: Based on the information above, how will the proposed project impact the EJ population? *NOTE: This summary should be included in the NEPA write up.*

Temporary access and travel pattern changes are anticipated to affect both EJ and non-EJ communities since everyone would have to utilize the detour to reach their destinations. However, it is likely that EJ populations would be affected by these impacts to a greater extent if they are low-income individuals. These changes to access and travel patterns would only have a temporary effect during the construction phase of the project. One of the public commenters who referred to themselves as low-income mentioned that the cost of gas for transportation during the construction period would be a hardship. Low-income EJ populations may find it more difficult to pay for additional gas to access amenities than someone who is not low-income. During construction only the project would likely have a disproportionate effect on particularly the low-income EJ population in Gore due to increased travel miles and time for travel to Webbers Falls or other destinations usually accessed via the SH-100 bridge. Additionally, all block groups in the study area show a presence of households in poverty. There could also be disproportionate impacts to low-income populations in Webbers Falls whose primary or only mode of travel is cycling or walking as they would not be able to cycle or walk safely to Gore or other destinations accessed via the SH-100 bridge while it is closed. Impacts would be temporary while the bridge is closed during construction.

It is likely that community cohesion in the study area would temporarily suffer as a result of the proposed project due to extended travel times between Webbers Falls and Gore, particularly for residents of Webbers Falls, who rely on services such as healthcare and grocery stores in Gore. It is possible that people within the community would participate less in activities across the two towns.

No mitigation is proposed, or likely feasible; however, incentives for early completion will be implemented to help alleviate the burden the additional travel time would have on low-income populations. Several design options are being discussed amongst ODOT and external agencies to determine the feasibility of decreasing the bridge's closure time. All measures to lessen the closure time will be implemented to the agency's ability.

The impacts to the low-income EJ population would be disproportionate, but not disproportionately high because they would be temporary (during construction). Further, the readily identifiable minority populations and the identified low-income population are located in Gore and would not lose access to essential goods and services in the town.

PART IV: PUBLIC INVOLVEMENT

Refer to the Public Involvement Plan for further guidance. Please note if material is available to view on ODOT website. If no public meeting is required, skip to Part V: Conclusion Statement.

I. Public Involvement

Was public involvement completed for this project? If yes, describe what measures where implemented to provide meaningful public involvement for the EJ population.

Yes, public involvement has been completed for this project. A VPOH was hosted online from February 12 to February 26, 2021. In addition to providing notices to adjacent property owners, pamphlets giving notice of the VPOH and information about the project were sent to 1,609 addresses covering the areas surrounding the study area in both counties. A VPOH was conducted instead of an in-person meeting because of ongoing COVID-19 concerns. The VPOH consisted of the same materials that would have been presented in an in-person meeting. The website included a homepage with an overview of the proposed project, a telephone contact, and information about American Disability Act (ADA) accommodations. Additionally, the website included a copy of the project pamphlet, a project presentation, an interactive project map, a project schematic, frequently asked questions, and an opportunity to comment. According to the website analytics, 318 unique visitors viewed the website over the 15-day period.

Letters were also mailed to state and federal agencies and Indian Tribes on February 10, 2021. These letters provided a short project description and included information about the VPOH and requested that recipients provide input by February 26, 2021.

II. Limited English Proficiency

a. Were there LEP persons identified in the project area? What languages do they speak?

Yes, all block groups show a presence of persons who speak English "less than very well". The LEP population makes up only 1% of the total population. People who speak Other languages make up the majority of the LEP population at 46% of the entire LEP population, followed by Indo-European language speakers (20%), Spanish speakers (17%), and Asian and Pacific Island language speakers (17%).

b. Does the percentage of LEP persons meet ODOT standards to require LEP documents/interpreter? *(Refer to the Public Involvement Plan for standards)*

No, the percentage of LEP persons does not meet ODOT standards to require LEP documents/interpreters.

c. What public involvement techniques were used or plan to be used?

Due to the low number of LEP persons living within the study area block groups (1%) assistance in a language other than English was not requested. However, if such requests were to arise, ODOT would provide assistance in another language to ensure that LEP populations are given the opportunity for meaningful involvement.

d. Was assistance in a language other than English requested or is it anticipated to be requested? Describe

Due to the low number of LEP persons living within the study area block groups (1%) assistance in a language other than English was not requested. However, if such requests were to arise, ODOT would provide assistance in another language to ensure

that LEP populations are given the opportunity for meaningful involvement throughout the NEPA process.

e. How were LEP persons accommodated during the public involvement process?

There were no special accommodations as none were requested.

f. Is any more public involvement planned? Will LEP persons continue to be accommodated? Describe

No further public involvement is planned at this time.

Public Involvement Summary: Based on the information above and public involvement documentation, were the EJ and LEP population given the opportunity for meaningful involvement in the NEPA process? *NOTE: This summary should be included in the NEPA write up.*

A VPOH was hosted online for a 15 day period to provide project information, a project presentation, project maps, and offer the public an opportunity to comment. Notification packages were sent to properties within the study area, state and federal resource agencies, and Native American Tribes. Every door direct mail service was used to target a broader audience (1609 mailings) within both counties. Due to the low number of LEP persons living within the study area block groups (1%), assistance in a language other than English was not requested or required.

PART V: CONCLUSION STATEMENT

Conclusion: Based on the information in this form, will the proposed project have disproportionately high and adverse impacts on minority and/or low-income populations? *NOTE: The conclusion statement should be included in the NEPA write up.*

Based on the analysis above, the proposed project will not cause disproportionately high and adverse effects on any minority or low-income populations in accordance with the provisions of E.O. 12898 and FHWA Order 6640.23. No further Environmental Justice analysis is required.

SH-100: Bridge over Arkansas River at the Muskogee/Sequoyah County Line

Muskogee and Sequoyah Counties

JP: 32100(04)

J3-2100(004)

Community Impact Assessment Attachments

Attachment 1 – Project Location Map

Attachment 2 – Land Use Map

Attachment 3 – Census Geographies Map

Attachment 4 – Strava Heatmap

Attachment 5 – Race and Ethnicity by Census Block, 2020

Attachment 6 – Median Household Income and Poverty Levels by Block Group, 2019

Attachment 7 – Limited English Proficiency Populations by Block Group, 2019

Attachment 8 – Population by Age by Block Group, 2019

Attachment 9 – Employment Status and Unemployment Rate by Block Group, 2019

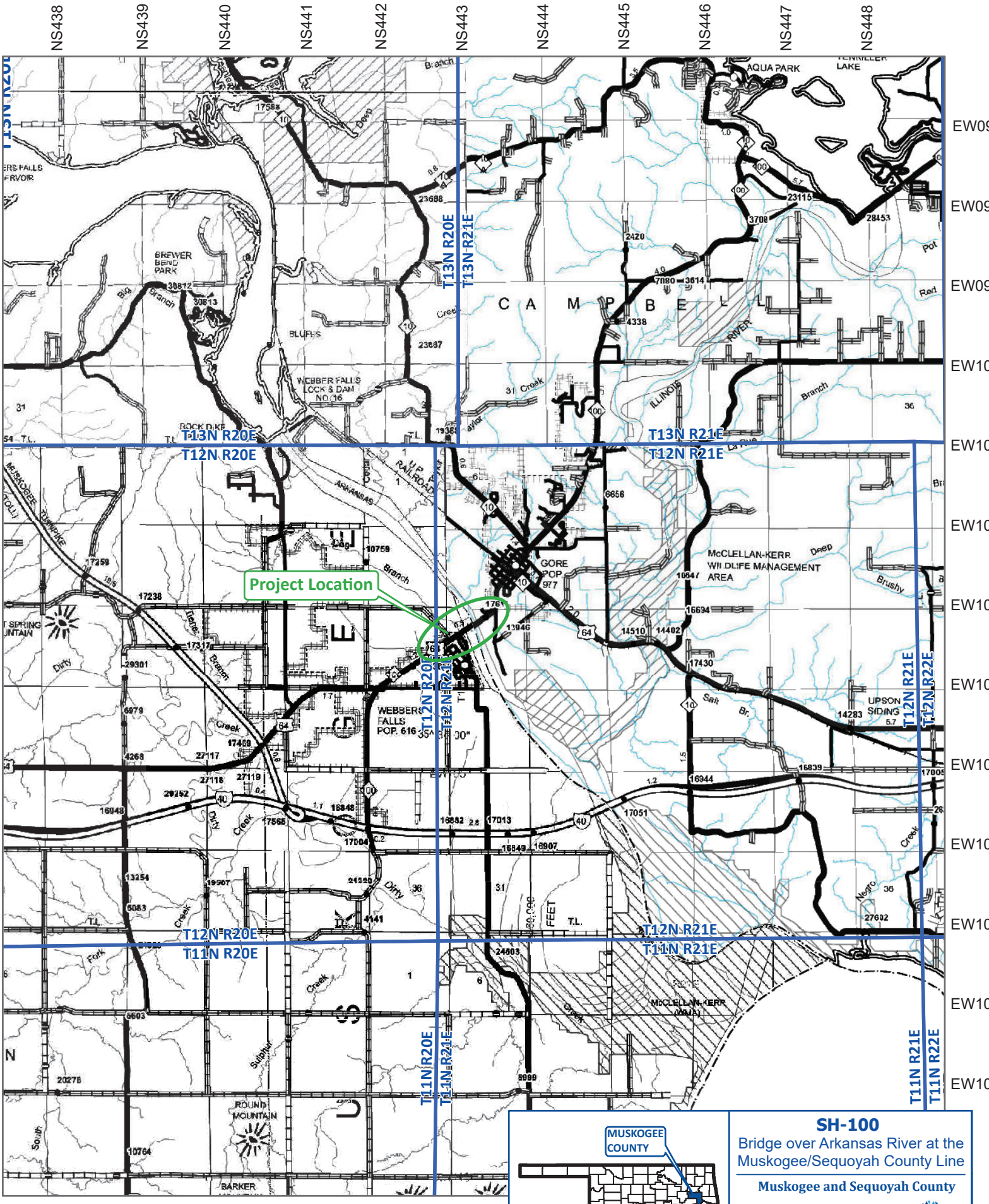
Attachment 10 – Means of Transportation to Work by Place of Work, 2019

Attachment 11 – Population 65 and Over Living Alone by Block Group, 2019

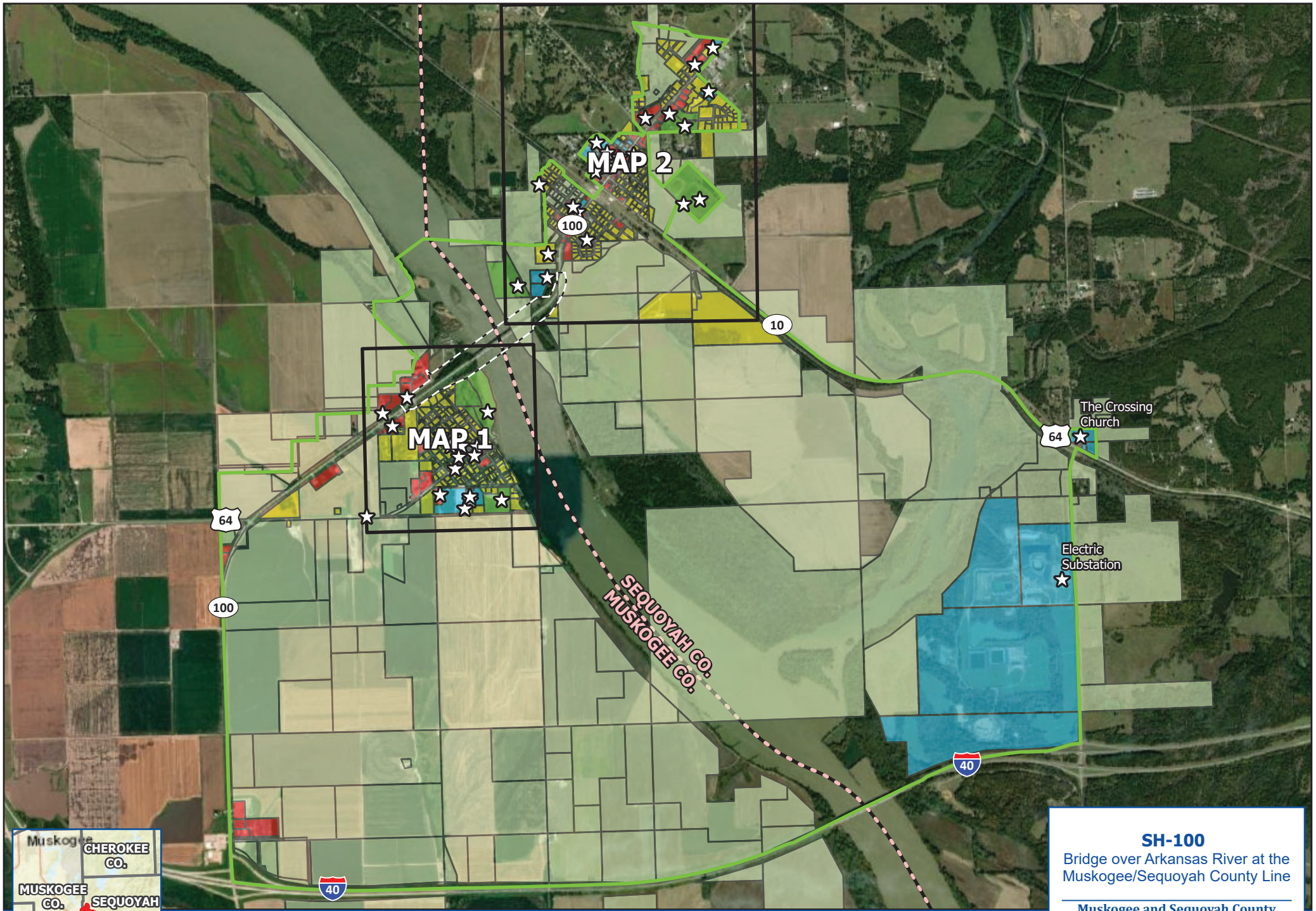
Attachment 12 – Population with a Disability by Census Tract, 2019

Attachment 13 – Project Area Photographs

Attachment 1 – Project Location Map


NS438
NS439
NS440
NS441
NS442
NS443
NS444
NS445
NS446
NS447
NS448
EW097
EW098
EW099
EW100
EW101
EW102
EW103
EW104
EW105
EW106
EW107
EW108
EW109
Project Location
T13N R20E
T13N R21E
T12N R20E
T12N R21E
T12N R22E
T11N R20E
T11N R21E
T11N R22E
AQUA PARK
BREWER BEND PARK
BLUFFS
WEBBER FALLS LOCK & DAM NO. 16
ROCK DIKE
GORE POP. 977
WEBBERS FALLS POP. 616
McCLELLAN-KERR WILDLIFE MANAGEMENT AREA
UPSON SIDING
ROUND MOUNTAIN
BARKER
ARKANSAS RIVER
MUSKOGEE TURNPIKE (TOLL)
Project Location
Township & Range Boundary
Miles
0
0.75
1.5
1 inch = 1.5 miles
N
MUSKOGEE COUNTY
SH-100
Bridge over Arkansas River at the Muskogee/Sequoyah County Line
Muskogee and Sequoyah County
JP No. 32100(04)
Project #: J3-2100(004)
OKLAHOMA Transportation
Project Location Map
Basemap: ODOT

Attachment 2 – Land Use Map



SH-100

Bridge over Arkansas River at the Muskogee/Sequoyah County Line

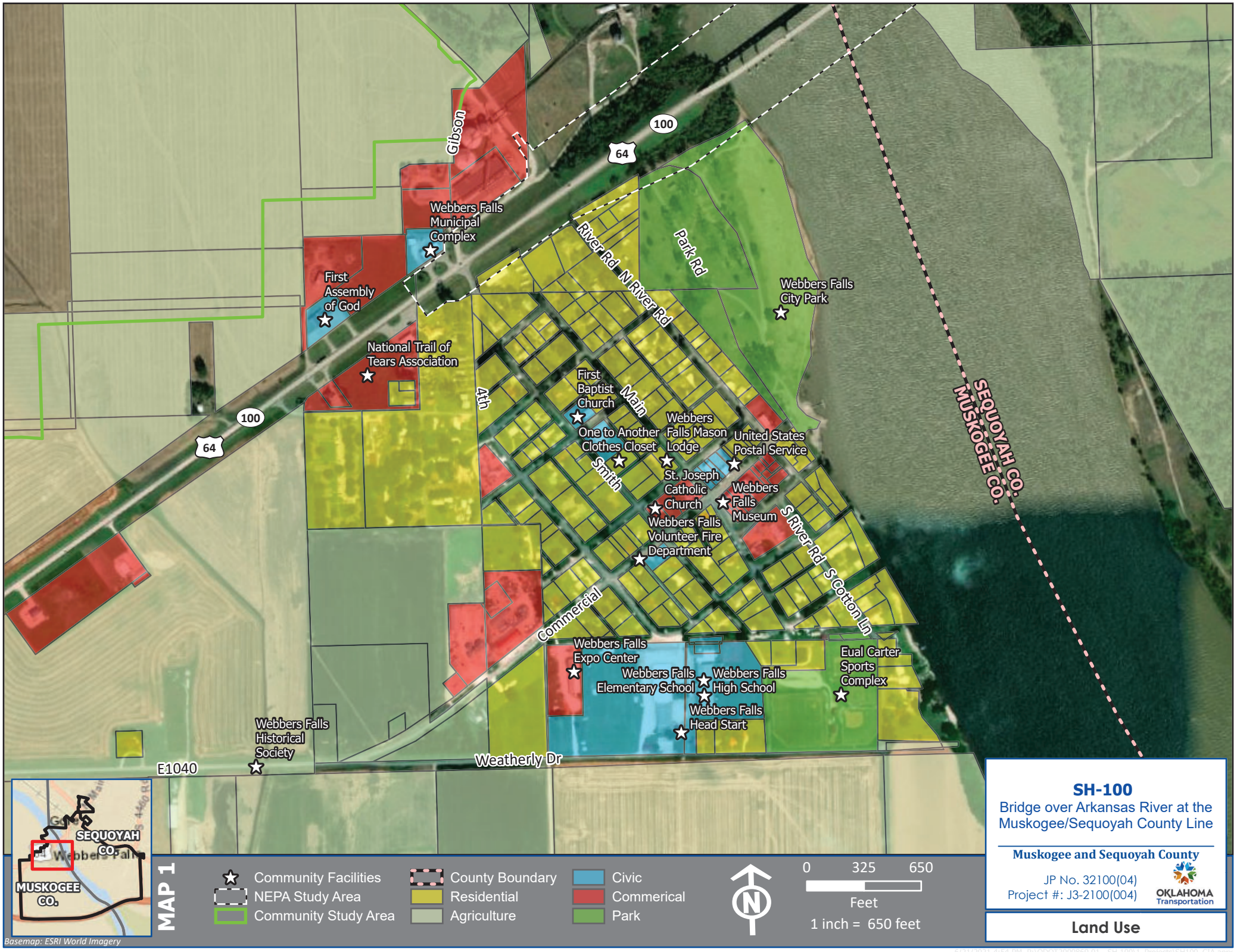
Muskogee and Sequoyah County

JP No. 32100(04)
Project #: J3-2100(004)

OKLAHOMA Transportation

Land Use Overview

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SH-100

Bridge over Arkansas River at the Muskogee/Sequoyah County Line

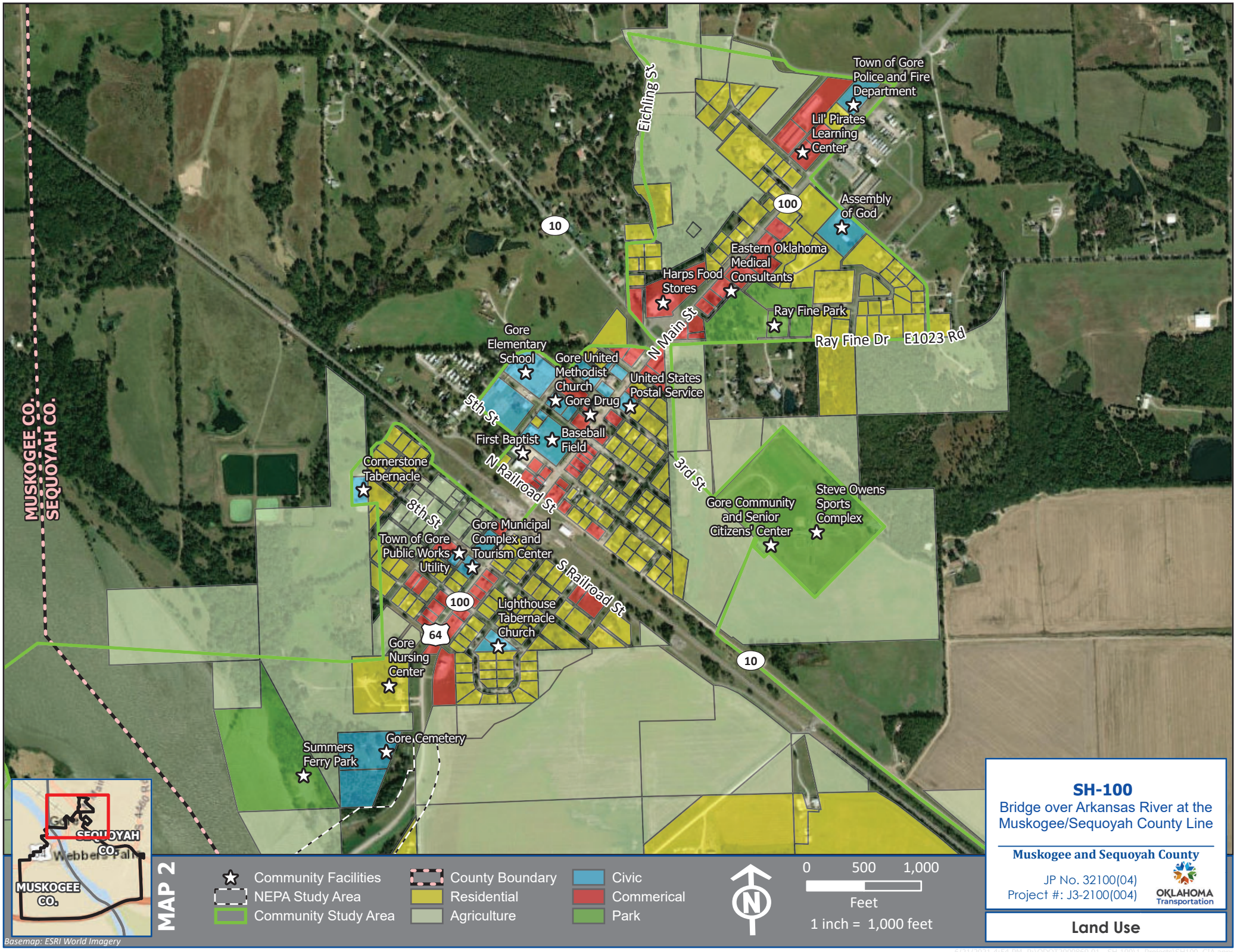
Muskogee and Sequoyah County

JP No. 32100(04)
Project #: J3-2100(004)

OKLAHOMA Transportation

Land Use

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SH-100

Bridge over Arkansas River at the Muskogee/Sequoyah County Line

Muskogee and Sequoyah County

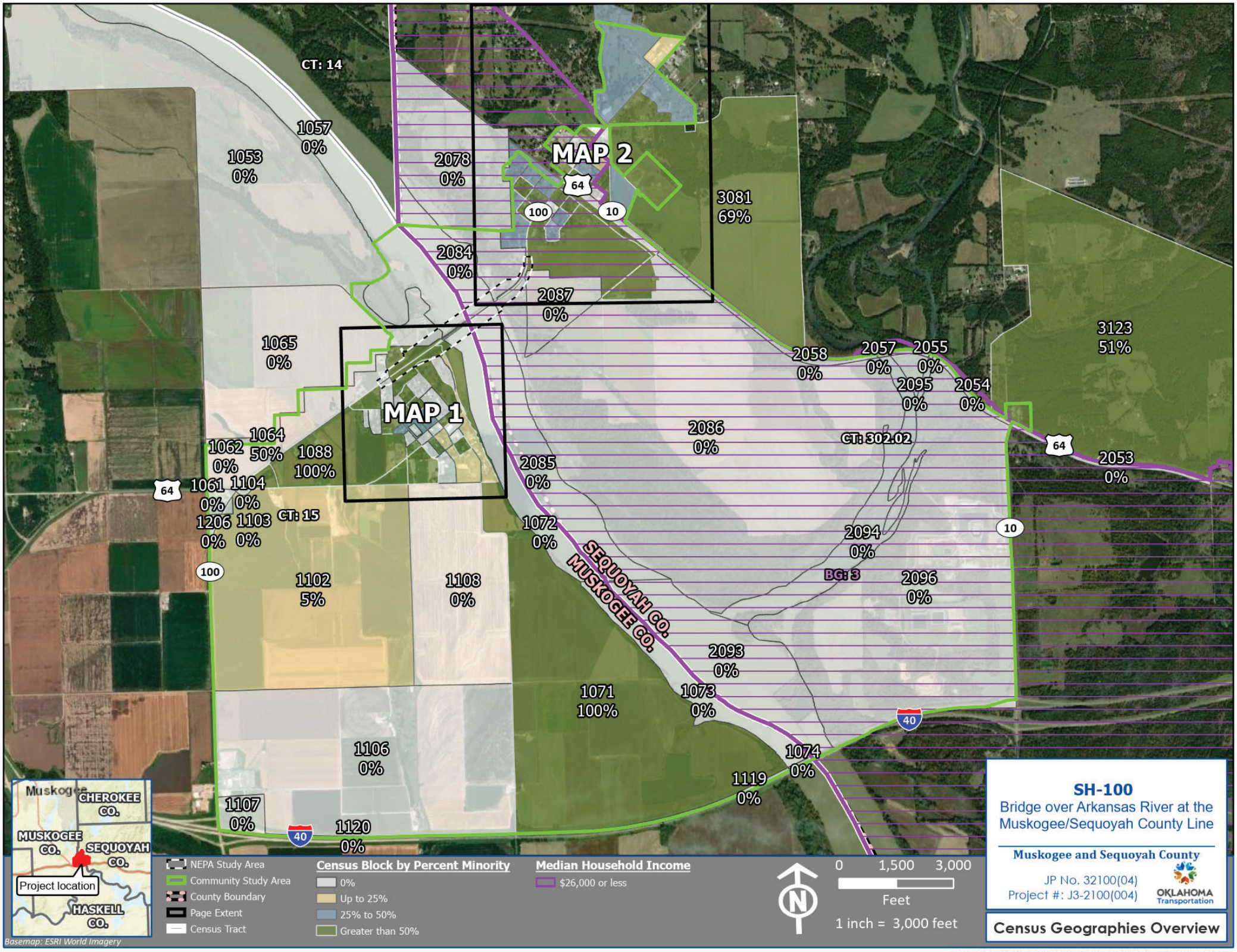
JP No. 32100(04)
Project #: J3-2100(004)

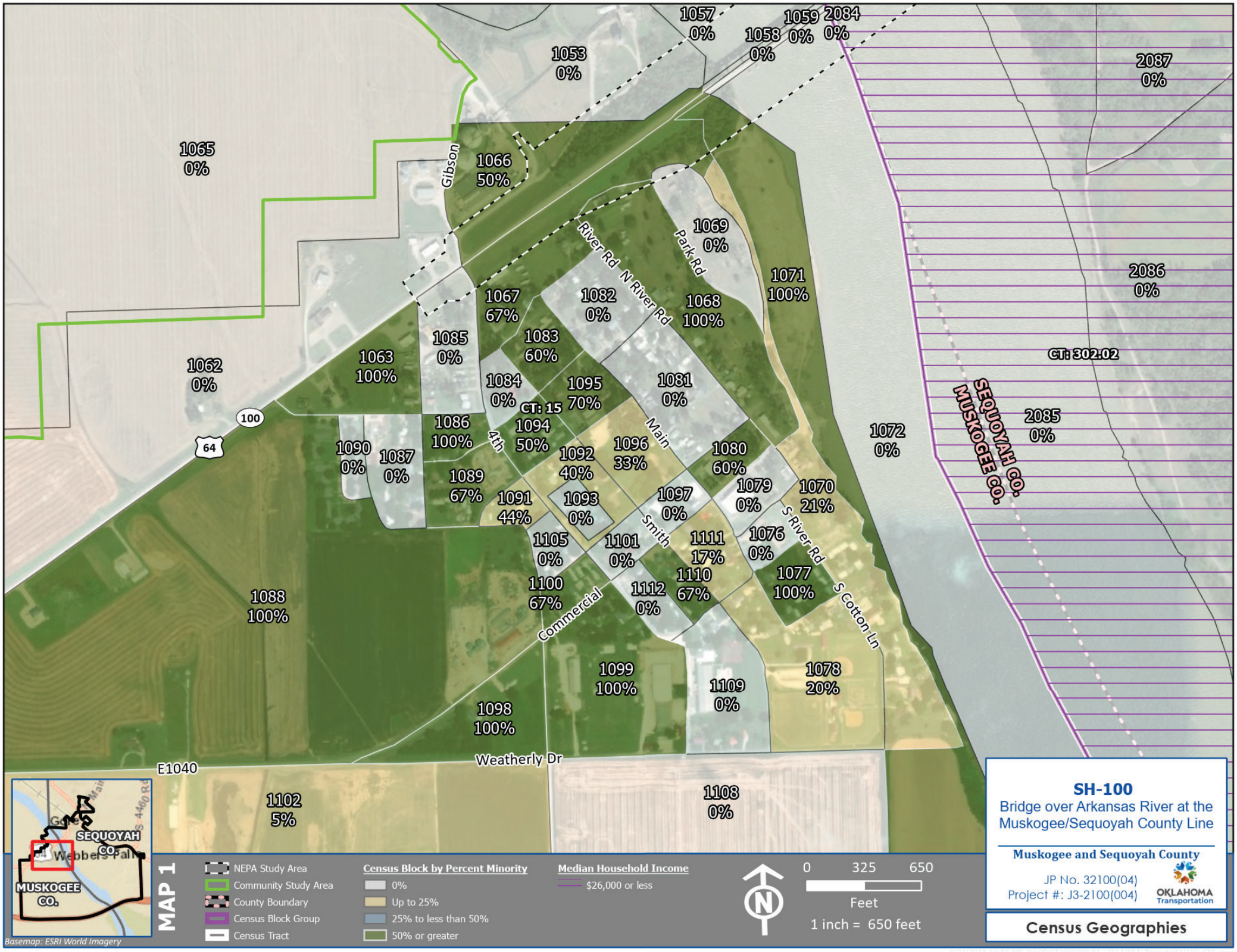
OKLAHOMA Transportation

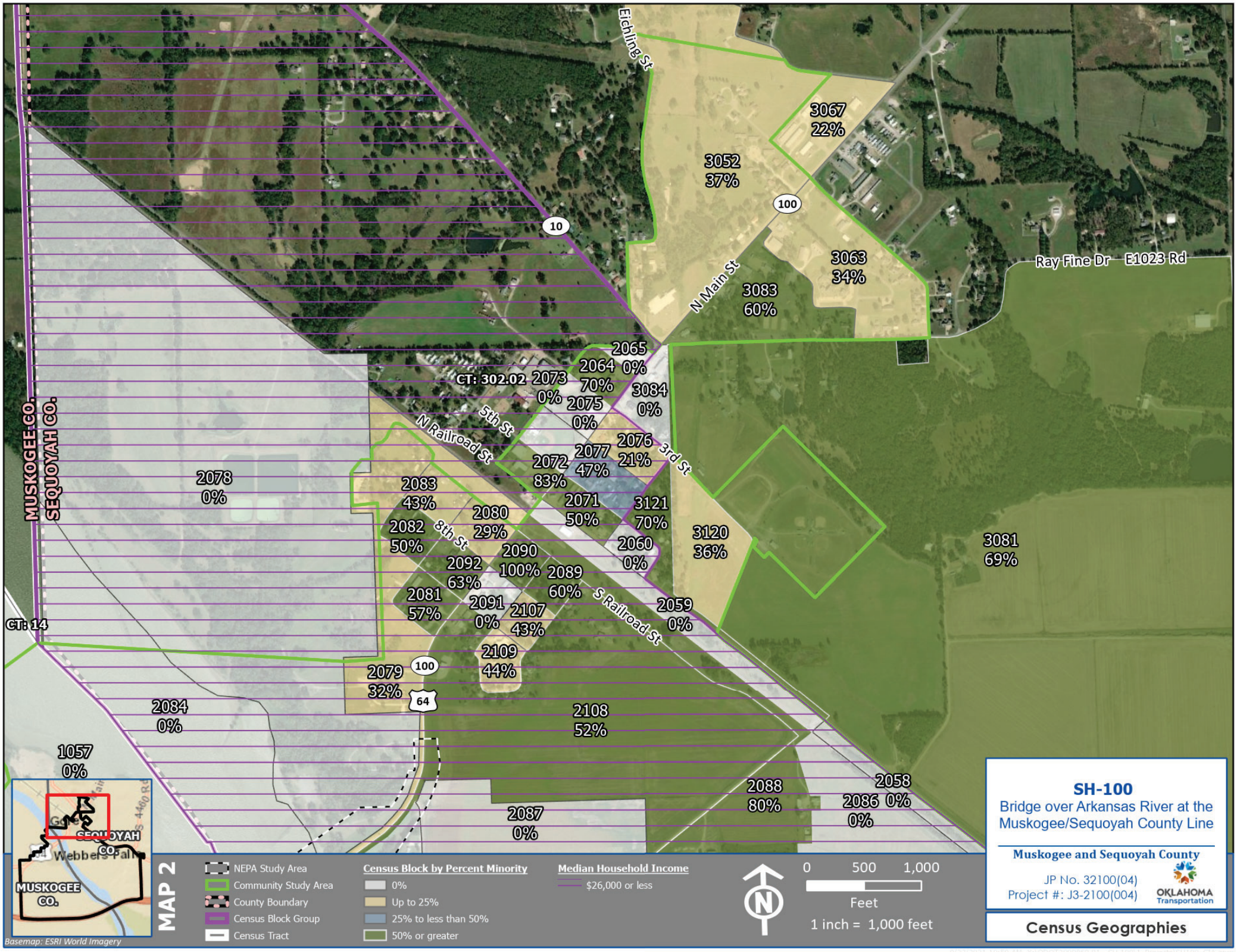
Land Use

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Attachment 3 – Census Geographies Map


CT: 14
1057
0%
1053
0%
2078
0%
MAP 2
64
100
10
3081
69%
2084
0%
2087
0%
1065
0%
MAP 1
2058
0%
2057
0%
2055
0%
2095
0%
2054
0%
3123
51%
2086
0%
CT: 302.02
64
2053
0%
1064
50%
1062
0%
1088
100%
2085
0%
64
1061
0%
1104
0%
1206
0%
1103
0%
CT: 15
1072
0%
2094
0%
10
BG: 3
2096
0%
100
1102
5%
1108
0%
SEQUOYAH CO.
MUSKOGEE CO.
2093
0%
1071
100%
1073
0%
40
1106
0%
1074
0%
1119
0%
1107
0%
40
1120
0%
Muskogee
CHEROKEE CO.
MUSKOGEE CO.
SEQUOYAH CO.
Project location
HASKELL CO.
NEPA Study Area
Community Study Area
County Boundary
Page Extent
Census Tract
Census Block by Percent Minority
0%
Up to 25%
25% to 50%
Greater than 50%
Median Household Income
$26,000 or less
N
0
1,500
3,000
Feet
1 inch = 3,000 feet
SH-100
Bridge over Arkansas River at the Muskogee/Sequoyah County Line
Muskogee and Sequoyah County
JP No. 32100(04)
Project #: J3-2100(004)
OKLAHOMA Transportation
Census Geographies Overview
Basemap: ESRI World Imagery


1057 0%
1058 0%
1059 0%
2084 0%
1053 0%
2087 0%
1065 0%
1066 50%
Gibson
River Rd
N River Rd
Park Rd
1069 0%
1071 100%
2086 0%
1067 67%
1082 0%
1068 100%
1085 0%
1083 60%
1063 100%
1062 0%
CT: 302.02
1084 0%
1095 70%
1081 0%
CT: 15
1094 50%
SEQUOYAH CO.
MUSKOGEE CO.
2085 0%
100
64
1086 100%
4th
Main
1072 0%
1090 0%
1087 0%
1092 40%
1096 33%
1080 60%
1089 67%
1091 44%
1093 0%
1097 0%
1079 0%
1070 21%
S River Rd
1105 0%
1101 0%
Smith
1111 17%
1076 0%
1088 100%
1100 67%
1110 67%
1077 100%
1112 0%
Commercial
S Cotton Ln
1099 100%
1109 0%
1078 20%
1098 100%
Weatherly Dr
E1040
1102 5%
1108 0%
SEQUOYAH CO.
MUSKOGEE CO.
Webbers Falls
MAP 1
NEPA Study Area
Community Study Area
County Boundary
Census Block Group
Census Tract
Census Block by Percent Minority
0%
Up to 25%
25% to less than 50%
50% or greater
Median Household Income
$26,000 or less
N
0 325 650
Feet
1 inch = 650 feet
SH-100
Bridge over Arkansas River at the Muskogee/Sequoyah County Line
Muskogee and Sequoyah County
JP No. 32100(04)
Project #: J3-2100(004)
OKLAHOMA Transportation
Census Geographies
Basemap: ESRI World Imagery



SH-100

Bridge over Arkansas River at the Muskogee/Sequoyah County Line

Muskogee and Sequoyah County

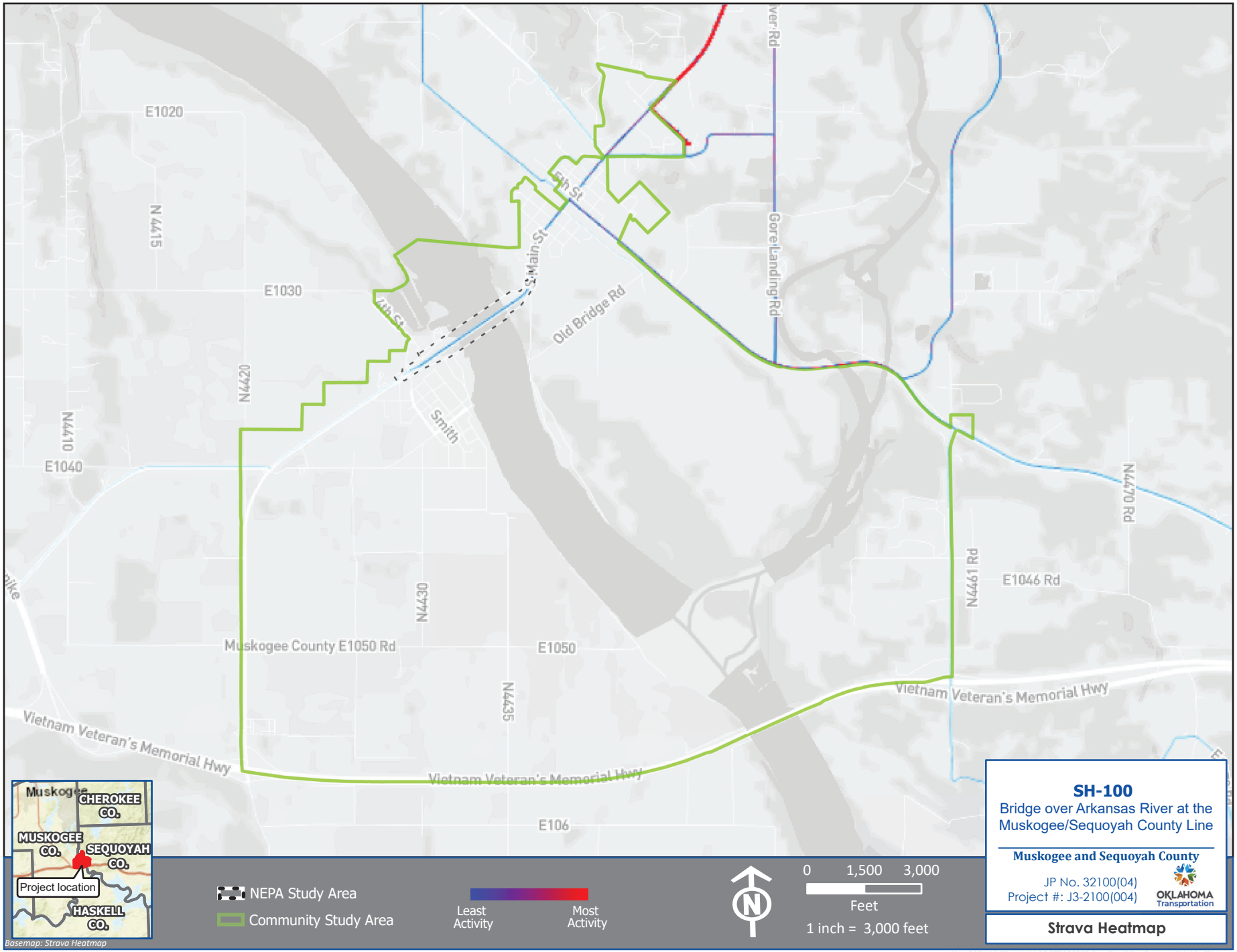
JP No. 32100(04)
Project #: J3-2100(004)

OKLAHOMA Transportation

Census Geographies

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Attachment 4 – Strava Heatmap


E1020
N 4415
E1030
N4420
N4410
E1040
Main St
Old Bridge Rd
Smith
Gore Landing Rd
N4470 Rd
N4461 Rd
E1046 Rd
N4430
Muskogee County E1050 Rd
E1050
N4435
Vietnam Veteran's Memorial Hwy
Vietnam Veteran's Memorial Hwy
Vietnam Veteran's Memorial Hwy
E106
Muskogee
CHEROKEE CO.
MUSKOGEE CO.
SEQUOYAH CO.
HASKELL CO.
Project location
Basemap: Strava Heatmap
NEPA Study Area
Community Study Area
Least Activity
Most Activity
N
0 1,500 3,000
Feet
1 inch = 3,000 feet
SH-100
Bridge over Arkansas River at the Muskogee/Sequoyah County Line
Muskogee and Sequoyah County
JP No. 32100(04)
Project #: J3-2100(004)
OKLAHOMA Transportation
Strava Heatmap

Attachment 5 – Race and Ethnicity by Census Block, 2020

Race and Ethnicity by Census Block, 2020

County	Census Tract	Block Group	Block	Total	White	Black or African American	Hispanic or Latino	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Other Race	Two or more races	Total Minority	Percent Minority
Muskogee	15.01	1	1063	2	0	0	0	1	0	0	0	1	2	100%
			1064	6	3	0	0	2	0	0	0	1	3	50%
			1066	4	2	0	0	0	0	0	0	2	2	50%
			1067	3	1	0	0	2	0	0	0	0	2	67%
			1068	1	0	0	0	1	0	0	0	0	1	100%
			1070	14	11	0	1	2	0	0	0	0	3	21%
			1071	1	0	1	0	0	0	0	0	0	1	100%
			1077	2	0	0	0	2	0	0	0	0	2	100%
			1078	10	8	0	0	2	0	0	0	0	2	20%
			1080	5	2	0	0	3	0	0	0	0	3	60%
			1081	24	24	0	0	0	0	0	0	0	0	0%
			1082	16	16	0	0	0	0	0	0	0	0	0%
			1083	10	4	0	0	2	0	0	0	4	6	60%
			1085	2	2	0	0	0	0	0	0	0	0	0%
			1086	5	0	0	0	4	0	0	0	1	5	100%
			1088	1	0	0	0	0	0	0	0	1	1	100%
			1089	3	1	0	0	1	0	0	0	1	2	67%
			1091	16	9	0	0	7	0	0	0	0	7	44%
			1092	5	3	0	0	0	0	0	0	2	2	40%
			1094	4	2	0	0	0	0	0	0	2	2	50%
			1095	20	6	0	2	7	0	0	0	5	14	70%
			1096	3	2	0	0	1	0	0	0	0	1	33%
			1097	9	9	0	0	0	0	0	0	0	0	0%
			1098	1	0	0	0	1	0	0	0	0	1	100%
			1099	3	0	0	0	1	0	0	0	2	3	100%
			1100	6	2	0	0	3	0	0	0	1	4	67%
			1101	12	12	0	0	0	0	0	0	0	0	0%

County	Census Tract	Block Group	Block	Total	White	Black or African American	Hispanic or Latino	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Other Race	Two or more races	Total Minority	Percent Minority
Muskogee	15.01	1	1102	19	18	0	0	0	0	0	0	1	1	5%
			1105	3	3	0	0	0	0	0	0	0	0	0%
			1110	6	2	0	0	4	0	0	0	0	4	67%
			1111	6	5	0	0	1	0	0	0	0	1	17%
			1112	1	1	0	0	0	0	0	0	0	0	0%
Census Tract 15.01 Block Group 1				**1,158**	**680**	**6**	**27**	**316**	**2**	**0**	**8**	**119**	**478**	**41%**
Sequoyah	302.02	2	2060	3	3	0	0	0	0	0	0	0	0	0%
			2064	10	3	2	0	0	0	0	0	5	7	70%
			2071	20	10	0	0	6	0	0	0	4	10	50%
			2072	6	1	0	1	4	0	0	0	0	5	83%
			2073	2	2	0	0	0	0	0	0	0	0	0%
			2076	19	15	0	0	3	0	0	0	1	4	21%
			2077	15	8	0	1	4	0	0	0	2	7	47%
			2079	63	43	3	2	9	2	0	1	3	20	32%
			2080	7	5	0	0	0	0	0	0	2	2	29%
			2081	7	3	0	0	0	0	0	0	4	4	57%
			2082	6	3	0	0	2	0	0	0	1	3	50%
			2083	14	8	0	1	2	0	0	0	3	6	43%
			2088	15	3	0	0	7	0	0	0	5	12	80%
			2089	10	4	0	0	4	1	0	0	1	6	60%
			2090	1	0	0	0	0	0	0	1	0	1	100%
			2091	8	8	0	0	0	0	0	0	0	0	0%
			2092	16	6	0	0	8	0	0	0	2	10	63%
			2107	14	8	0	0	6	0	0	0	0	6	43%
			2108	42	20	0	0	11	0	0	0	11	22	52%
			2109	25	14	0	0	10	0	0	0	1	11	44%
Census Tract 302.02 Block Group 2				**1,450**	**800**	**33**	**46**	**360**	**14**	**0**	**5**	**192**	**650**	**45%**
Sequoyah	302.02	3	3052	81	51	0	2	21	0	0	0	7	30	37%
			3063	59	39	0	0	14	2	0	0	4	20	34%
			3067	9	7	0	0	0	0	0	0	2	2	22%

County	Census Tract	Block Group	Block	Total	White	Black or African American	Hispanic or Latino	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Other Race	Two or more races	Total Minority	Percent Minority
Sequoyah	302.02	3	3081	51	16	0	0	34	0	0	0	1	35	69%
			3083	10	4	0	0	4	0	0	0	2	6	60%
			3120	11	7	0	0	4	0	0	0	0	4	36%
			3121	20	6	0	0	6	2	0	0	6	14	70%
			3123	45	22	0	0	20	0	0	0	3	23	51%
Census Tract 302.02 Block Group 3				**1,602**	**882**	**11**	**36**	**461**	**11**	**0**	**5**	**196**	**720**	**45%**
Study Area Totals				**812**	**467**	**6**	**10**	**226**	**7**	**0**	**2**	**94**	**345**	**42%**
Sequoyah County				**39,281**	**22,497**	**585**	**1,726**	**8,954**	**288**	**14**	**110**	**5,107**	**16,784**	**43%**
Muskogee County				**66,339**	**34,857**	**6,545**	**4,499**	**11,747**	**512**	**39**	**165**	**7,975**	**31,482**	**47%**

Source: *U.S. Census Bureau, 2020 Decennial Census. Table P2: Hispanic or Latino, and Not Hispanic or Latino by Race*.

Note: *Rows highlighted in yellow represent census blocks that comprise readily identifiable minority groups. The data in this table represents populated census blocks in the study area; census blocks which have no population are not included.*

Attachment 6 – Median Household Income and Poverty Levels by Block Group, 2019

Median Household Income and Poverty levels by Block Group, 2019

County	Census Tract	Block Group	Median Household Income	Percent of Households in Poverty
Sequoyah	302.02	2	$45,066	16%
		3	$20,380	17%
Sequoyah County			**$40,351**	**22%***
Muskogee	15	1	$37,917	24%
Muskogee County			**$43,078**	**21%***

Source: *U.S. Census Bureau, 2015-2019 American Community Survey 5-Year Estimates, Table B19013: Median Household Income; Table S1901: Income in the Past 12 Months; Table B17017: Poverty Status In The Past 12 Months by Household Type by Age Of Householder; and Table S1701 Poverty Status in the Past 12 Months.*

**Percent of individuals in poverty*

Attachment 7 – Limited English Proficiency Populations by Block Group, 2019

Limited English Proficiency (LEP) Populations by Block Group, 2019

County	Census Tract	Block Group	Total Population	Total LEP Population	Percent LEP	Spanish LEP	Indo-European Language LEP	Asian and Pacific Language LEP	Other Language LEP
Sequoyah	302.02	2	2,026	21	1%	0%	33%	0%	67%
		3	1,663	2	0%	0%	0%	0%	100%
Muskogee	15	1	1,367	12	1%	50%	0%	50%	0%
Study Area Total			**5,056**	**35**	**1%**	**17%**	**20%**	**17%**	**46%**
Sequoyah County			**39,056**	**422**	**1%**	**62%**	**4%**	**12%**	**23%**
Muskogee County			**64,156**	**910**	**1%**	**78%**	**4%**	**18%**	**0%**

Source: *American Community Survey 5-year estimate 2015-2019. Table 16004. "Age by Language Spoken At Home by Ability To Speak English*"

Attachment 8 – Population by Age by Block Group, 2019

Population by Age by Block Group, 2019

County	Census Tract	Block Group	Total Population	Female Under 18	Female 18 and Over	Male Under 18	Male 18 and Over
Sequoyah	303.02	2	1,391	11%	55%	12%	51%
		3	463	6%	18%	9%	10%
Muskogee	15	1	1,453	22%	60%	19%	54%
Study Area Total			**3,307**	**12%**	**41%**	**12%**	**35%**
Sequoyah County			**41,709**	**11%**	**39%**	**13%**	**37%**
Muskogee County			**68,736**	**12%**	**39%**	**13%**	**36%**

Source: *American Community Survey 5-Year Estimates 2015-2019. Table B01001 "Sex by Age"*

Attachment 9 – Employment Status and Unemployment Rate by Block Group, 2019

Employment Status and Unemployment Rate by Block Group, 2019

County	Census Tract	Block Group	Total	In labor force	Employed	Unemployed	Unemployment Rate
Sequoyah	303.02	2	1,161	652	591	61	9%
		3	312	246	246	0	0%
Muskogee	15	1	1,115	546	516	30	5%
Study Area Total			**2,588**	**1,444**	**1,353**	**91**	**4%**
Sequoyah County			**33,018**	**17,239**	**15,919**	**1,228**	**4%**
Muskogee County			**53,611**	**28,310**	**26,517**	**1,773**	**3%**

Source: *American Community Survey 5-Year Estimate 2015-2019. Table B23025 "Employment Status for the Population 16 Years and Over"*

Attachment 10 - Means of Transportation to Work by Place of Work, 2019

Means of Transportation to Work by Place of Work, 2019

County	Census Tract	Total	Work in State	Work in County	Work Outside of County	Work Outside of State	Drive Alone	Carpool	Public Transit	Walked	Taxicab, motorcycle, bicycle, or other means	Worked from home
Sequoyah	302.02	1,674	88%	66%	22%	12%	81%	13%	0%	1%	0%	4%
Sequoyah County		**15,747**	**69%**	**59%**	**10%**	**31%**	**87%**	**9%**	**0%**	**1%**	**1%**	**2%**
Muskogee	15	2,185	99%	74%	24%	1%	78%	13%	0%	1%	3%	6%
Muskogee County		**25,963**	**98%**	**79%**	**19%**	**2%**	**85%**	**7%**	**1%**	**2%**	**2%**	**3%**
Study Area		3,859	94%	71%	23%	6%	79%	13%	0%	1%	2%	5%

Source: *American Community Survey 5-Year Estimate 2015-2019. Table B08130 "Means of transportation to work by place of work--state and county level"*

Attachment 11 – Population 65 and Over Living Alone by Block Group, 2019

Population 65 and Over Living Alone by Block Group, 2019

County	Census Track	Block Group	Total	Total Living Alone	Percent Living Alone
Sequoyah	302.02	2	305	34	11%
		3	32	32	100%
Muskogee	15	1	286	99	35%
Study Area Total			**623**	**165**	**26%**
Sequoyah County			**11,297**	**3,459**	**31%**
Muskogee County			**7,535**	**1,200**	**16%**

Source: *American Community Survey 5-Year Estimates 2015-2019. Table B09020 "Relationship by Household Type (including Living Alone) for the Population 65 Years and Over"*

Note: *Highlighted rows indicate 25% or more of the population 65 and over is living alone.*

Attachment 12 – Population with a Disability by Census Tract, 2019

Population with a Disability by Census Tract, 2019

County	Census Tract	Total	With a disability	Percent with a disability
Sequoyah	302.02	5,096	1,181	23%
Muskogee	15	6,469	1,229	19%
Study Area Total		**11,565**	**2,410**	**21%**
Sequoyah County		**41,268**	**9187**	**22%**
Muskogee County		**65,760**	**11,812**	**18%**

Source: *American Community Survey 5-Year Estimates 2015-2019. Table B18101 "Sex by Age by Disability Status"*

Attachment 13 – Project Area Photographs



Photo 1: Looking southwest at the SH-100 bridge from the northern project terminus in Gore.



Photo 2: Looking northeast at SH-100 from the northern project terminus in Gore.



Photo 3: Looking northeast at the SH-100 bridge from the project's southern extent in Webbers Falls.



Photo 4: Looking southwest at SH-100 from the project's southern extent in Webbers Falls.



Photo 5: Commercial Street in Webbers Falls.



Photo 6: Webbers Falls Museum on Commercial Street.



Photo 7: United States Post Office in Webbers Falls on Commercial Street.



Photo 8: Typical residential neighborhood in the study area.



Photo 9: Webbers Falls Head Start on 4th Street, adjacent to Webbers Falls High school.



Photo 10: Webbers Falls High School on 4th Street.



Photo 11: Home with ramp in the study area.



Photo 12: Home with ramp in the study area.



Photo 13: Home with ramp in the study area.



Photo 14: Abandoned home in disrepair in Webbers Falls.



Photo 15: Webbers Falls Mason Lodge on N Main Street in Webbers Falls.



Photo 16: Webbers Falls City Park along the south of the Arkansas River and east of SH-100.



Photo 17: Webbers Falls Expo Center on W Commercial Street in Webbers Falls.



Photo 18: Eual Carter Sports Complex on S Smith Street in Webbers Falls.



Photo 19: Multifamily residence in Webbers Falls.



Photo 20: Webbers Falls Municipal Complex: home of the Webbers Falls City Hall, Water department, and Police Department. The complex is located on the western side of SH-100.



Photo 21: First Baptist Church on McCorkle Street in Webbers Falls.



Photo 22: One to Another Clothes Closet on N Smith Road in Webbers Falls.



Photo 23: St. Joseph Catholic Church on S Smith Street in Webbers Falls.



Photo 24: Traffic signs in Webbers Falls display the Cherokee language.



Photo 25: First Assembly of God Church located on the western side of SH-100 in Webbers Falls.



Photo 26: Typical agricultural land use south of Webbers Falls. This picture looks south on S River Road.



Photo 27: Looking north from eastbound I-40 frontage road where traffic would turn left onto SH-10 on the detour route to Gore.



Photo 28: Electric substation on the west side of SH-10.



Photo 29: The Crossing Church located at the intersection of SH-10 and US-64, east of Gore.



Photo 30: Gore Community and Senior Citizen's Center located on Steve Owens Road.



Photo 31: Steve Owens Sports Complex located on Steve Owens Road.



Photo 32: Intersection of N Railroad Street and Main Street in Gore. This is the main intersection motorists will arrive at while using the detour route.



Photo 33: Home in disrepair in the study area.



Photo 34: Town of Gore Police and Fire Department located on Main Street in Gore. Screenshot from Google Maps.



Photo 35: Lil' Pirates Learning Center located on Main Street in Gore. Screenshot from Google Maps.



Photo 36: US post office on Main Street in Gore.



Photo 37: Harps grocery store on Main Street in Gore. Comments noted that access to full-service grocery stores from Webbers Falls would become more difficult as a result of the closed bridge.



Photo 38: Ray Fine Memorial Park on Ray Fine Drive in Gore.



Photo 39: A person on a bike on the SH-100 shoulder in Gore, indicating that people in the area use alternative transportation modes in the study area.



Photo 40: First Assembly of God on East Red Bud Lane in Gore.



Photo 41: Unnamed baseball field which is a part of Gore Elementary school. The baseball field is located on Main Street in Gore.



Photo 42: Gore United Methodist Church on Winn Street in Gore.



Photo 43: First Baptist Church located on 5th Street in Gore.



Photo 44: Cornerstone Tabernacle Church located on 8th Street in Gore.



Photo 45: Gore Municipal Complex and Tourism Center on Main Street in Gore.



Photo 46: Gore Public Works Utilities on 8th Street in Gore.



Photo 47: Gore Nursing Center located on the west side of SH-100 in Gore.



Photo 48: Gore Cemetery located on the west side of SH-100 in Gore.



Photo 49: Summers Ferry Park located along the north side of the Arkansas river and western side of SH-100 in Gore.



Photo 50: Lighthouse Tabernacle on Campbell Street in Gore.

SECTION 106

CULTURAL RESOURCES STUDIES

OKLAHOMA DEPARTMENT OF TRANSPORTATION
CULTURAL RESOURCES PROGRAM
111 E. Chesapeake, Room 102
Norman 73019-5111
www.odotculturalresources.info

DATE: September 28, 2021

TO: Kelly Saladis, NEPA Project Manager
Andrew Ward, Environmental Project Manager

FROM: Nicholas Beale, Cultural Resources Program

SUBJECT: Muskogee County Project JP 32100(04): Proposed bridge replacement on SH-100 over the Arkansas River at the Muskogee/Sequoyah County line.

Originally ODOT completed Section 106 consultation on behalf of FHWA for the proposed bridge replacement on SH-100 over the Arkansas River at the Muskogee/Sequoyah County line for 38 acres on June 12, 2020. ODOT determined the proposed project will have no effect on historic properties.

During the original investigation previously recorded site 34SQ326 was reinvestigated and documented on a site update form and the Gore Cemetery was documented on Historic Preservation Resource Identification form. Neither of these cultural resources are eligible for listing on the NRHP, and both the State Historic Preservation Office (File #1680-20) and the State Archaeologist (File #FY20-2030) resulted in concurrence with our assessment and determination.

Since the original study the APE increased by 8.7 acres so ODOT reconsulted with SHPO, OAS, and Tribes on the additional area. The subsequent cultural resource study that was conducted due to the change in the APE, yielded no additional cultural resources. Both the State Historic Preservation Office (File #2750-21) and the State Archaeologist (File #FY21-2739) concurred with our assessment and determination.

ODOT-Cultural Resource Program 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, and Wichita & Affiliated Tribes.

An updated avoidance memo is included for off-project facilities.

NB

Environmental Programs Division,
Office 405.521.3050 / Fax 405.522.5193

DATE: March 1, 2022

TO: Project Management Division

FROM: Environmental Programs Division

SUBJECT: Muskogee County JP 32100(04): Proposed bridge replacement on SH-100 over the Arkansas River at the Muskogee/Sequoyah County line.

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 7:	SE¼
Section 18:	NE¼ SW¼
	NE¼ SE¼
	SW¼ NW¼
	N½ NW¼ NE¼
T12N R20E	
Section 13:	All

SAS

Oklahoma Historical Society *Founded May 27, 1893*
State Historic Preservation Office
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

September 2, 2021

Mr. Scott Sundermeyer, Director
ODOT Cultural Resources Program
3200 Marshall Avenue, Room 110
Norman, OK 73019

RE: File #2750-21; [Former #1680-20]; Arkansas River Bridge Project on SH-100, #JP-32100(04), including 34SQ326; Muskogee and Sequoyah Counties

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. We find that there are no known historic properties affected within the referenced project's area of potential effect.

In addition to our review, you must contact the Oklahoma Archeological Survey (OAS), 111 E. Chesapeake, #102, Norman OK 73019-5111 (#405/325-7211, FAX #405/325-7604), to obtain a determination about the presence of prehistoric resources that may be eligible for the National Register of Historic Places. 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 inclusion in the National Register of Historic Places 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 State Historic Preservation Office will be necessary.

Should further correspondence pertaining to this project be necessary, please reference the above underlined file number. If you have any questions, please contact Kristina Wyckoff, Historical Archaeologist, at 405/521-6381. Thank you.

Sincerely,

Lynda Ozan
Deputy State Historic
Preservation Officer

LO:pm

Oklahoma Archeological Survey
THE UNIVERSITY OF OKLAHOMA

September 20, 2021

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

Re: OAS FY21-2739 *Letter Report Addendum: Reconstruction of State Highway SH-100 and Replacement of Bridge over Arkansas River*, by Adam Birge (Raba Kistner)
ODOT J/P: 32100(04)
Legal Description: Sections 13, T12N, R20E; Section 18, T12N, R20E
Muskogee & Sequoyah Counties, Oklahoma

Dear Mr. Sundermeyer,

This agency received the submitted ODOT cultural resources addendum letter report regarding the proposed reconstruction of SH-100 and bridge replacement over the Arkansas River on the Muskogee and Sequoyah County border for review and comment. This project was originally reviewed by our office in 2020 (letter issued June 10, 2020). Since that time, I understand that the Area of Potential Effects (APE) has been expanded somewhat. From the information provided, I understand that Raba Kistner staff surveyed the additional 6.98-acre study area on May 26, 2021. No archaeological materials were encountered by this additional investigation and no data were recovered that cause ODOT to change their earlier recommended determination of effects from the 2020 consultation. ODOT continues to recommend that 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 and 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

OKLAHOMA Transportation

OKLAHOMA DEPARTMENT OF TRANSPORTATION
CULTURAL RESOURCES PROGRAM
111 E. Chesapeake, Room 102
Norman 73019-5111
www.odotculturalresources.info

August 18,2021

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: File 1680-20; OASFY20-2030; Muskogee County FHWA Project JP 32100(04): Proposed bridge replacement on SH-100 over the Arkansas River at the Muskogee/Sequoyah County line; submittal for comment under Section 106 of the National Historic Preservation Act. **SUPPLEMENTAL SUBMITTAL/CHANGE IN APE**

Thank you for your comments of May 21, 2020 and June 10, 2020 in which you concurred with our finding of no historic properties affected.

ODOT is respectfully submitting the attached materials in order to document a change in the area of potential effect (APE) due to design changes that were necessary after we concluded Section 106 consultation for the referenced undertaking. These design changes occur within four distinct areas. Area B is of particular note, as it occurs within the boundary of site 34SQ326. Indeed, the State Archaeologist provided specific comment during our 2019 consultation detailing cultural resources survey efforts that might be necessary within the site boundaries of 34SQ326. As illustrated in Figure 1 of the attached materials, the APE extends beyond what was submitted in 2019 at 34SQ326.

Cultural resources survey efforts for the current study were consistent with those employed during the 2019 consultation. The current investigations did not identify any archaeological materials or features in any of the APE. Indeed, shovel testing in Areas A, C, and D resulted in no archaeological materials. Because 34SQ326 had been subjected to such intensive survey outside the project footprint during the 2019 investigations, no additional work was conducted in Area B for the current investigation. Upon review of the site update form submitted to your office in 2019, specifically archaeological materials recovered from the 2019 study in Area B (roughly corresponding to Shovel Tests 933, 957, 971, 968, and 948), ODOT believes that impacts associated with Area B would not change our 2019 finding of effect on 34SQ326. In fact, ODOT in confirming our finding of effect of the undertaking on 34SQ326. The archaeological material retrieved from within the APE of 34SQ326 are in compromised context and do not retain characteristics that would qualify the site for eligibility in the National Register of Historic Places.

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 me at 325-7201.

Sincerely,

Scott Sundermeyer
Director, ODOT Cultural Resources Program

cc: State Archaeologist

RABA KISTNER
Raba Kistner, Inc.
19111 North Dallas Parkway
Suite 310
Dallas, TX 75287
www.rkci.com

P 972-385-8269
F 972-385-8165
TBPE Firm F-3257

July 27, 2021

Oklahoma Department of Transportation
Cultural Resources Program
3200 Marshall, Room 110
Norman, OK 73019

This letter report documents and updates the cultural resource investigations for the additional area of potential effect (APE) pertaining to the proposed improvements to State Highway (SH) 100 and the replacement of the bridge carrying SH-100 over the Arkansas River JP #32100(04). The proposed project is located approximately 2.7 miles north of the intersection of SH-100 and Interstate Highway-40 near the towns of Webbers Falls and Gore, Muskogee and Sequoyah Counties, Oklahoma. The original APE, which consisted of 37.38 acres, was surveyed and reported in 2019. The results of the survey included revisiting and expanding the boundaries of site 34SQ236. ODOT determined that the site is not eligible for inclusion to the NRHP, and SHPO (File #1680-20) and OAS (FY20-2030) concurred.

Current-Investigation

Since the previous investigations in 2019, the study area for the proposed project was expanded from a maximum of 150 feet to the north and south of the centerline of SH-100 to 300 feet to the north and south to accommodate design changes needed to accomplish the intended project. This new additional study area extends approximately 600 feet from the east and west of the Arkansas River and comprises approximately 8.7 acres of existing right-of-way. On April 28, 2021, **RKI** was given the notice to proceed with the cultural resource survey of the new, expanded study area (2021 study area). On May 26, 2021, **RKI** archaeologists Christopher Mathews and Charles Neel conducted pedestrian archaeological survey augmented with shovel tests within the updated study area.



The updated study area consists of four new areas: Area A, Area B, Area C, and Area D (Figures 1 and 2). Area A consists of approximately 1.81 acres of densely wooded flat lands mixed with cleared areas of recently mowed grass located to the east of the Arkansas River and north of SH-100. Area A starts 150 feet north of the centerline of SH-100 and ends 300 feet north of the centerline of SH-100, while the eastern edge is approximately 588 feet east of the Arkansas River (**Figure 3**). Area B consists of densely wooded areas totaling approximately 1.1 acres and is located to the east of the Arkansas River and south of SH-100. Area B starts 150 south of SH-100 and extends to approximately 225 feet south, while the eastern boundary is approximately 680 feet east of the Arkansas River. The archaeological site 34SQ326 is located nearby and was expanded in 2019 to include portions of Area B. Area C is a densely wooded area on the slope of the western embankment for SH-100, located to the west of the Arkansas River and north of SH-100. Area C measures approximately 2.03 acres in size and begins 150 feet north of the centerline of SH-100 and ends at 300 feet, while the western boundary is approximately 603 feet from the Arkansas River. Area D consists primarily of densely wooded areas on the slope of the embankment of SH-100 mixed with areas of recently graded and cleared land to the west of the Arkansas River and south of SH-100. Area D measures approximately 2.04 acres in size and begins 150 feet south of the centerline of SH-100 and ends 300 feet south, while the western boundary begins approximately 615 feet west of the Arkansas River (see **Figure 4** for Area C and Area D).

Methodology

The 2021 investigations maintained the same methodology as employed during the 2019 investigations. All four areas (Areas A, B, C, and D) were subjected to a pedestrian survey augmented by shovel tests, and Area A was subjected to additional intensive survey due to proximity to the previously documented 34SQ326. Shovel tests were excavated at an interval of 30-meters, if intact landforms were encountered. Shovel tests were all excavated into underlying sediments, except when the water table was encountered. All excavated soil and sediment was screened through ¼" hardware cloth.

Findings

During the 2021 investigations, no archaeological sites were recorded, no archaeological materials were identified on the surface or in shovel tests of the updated study area, and no resources of the built environment were encountered.

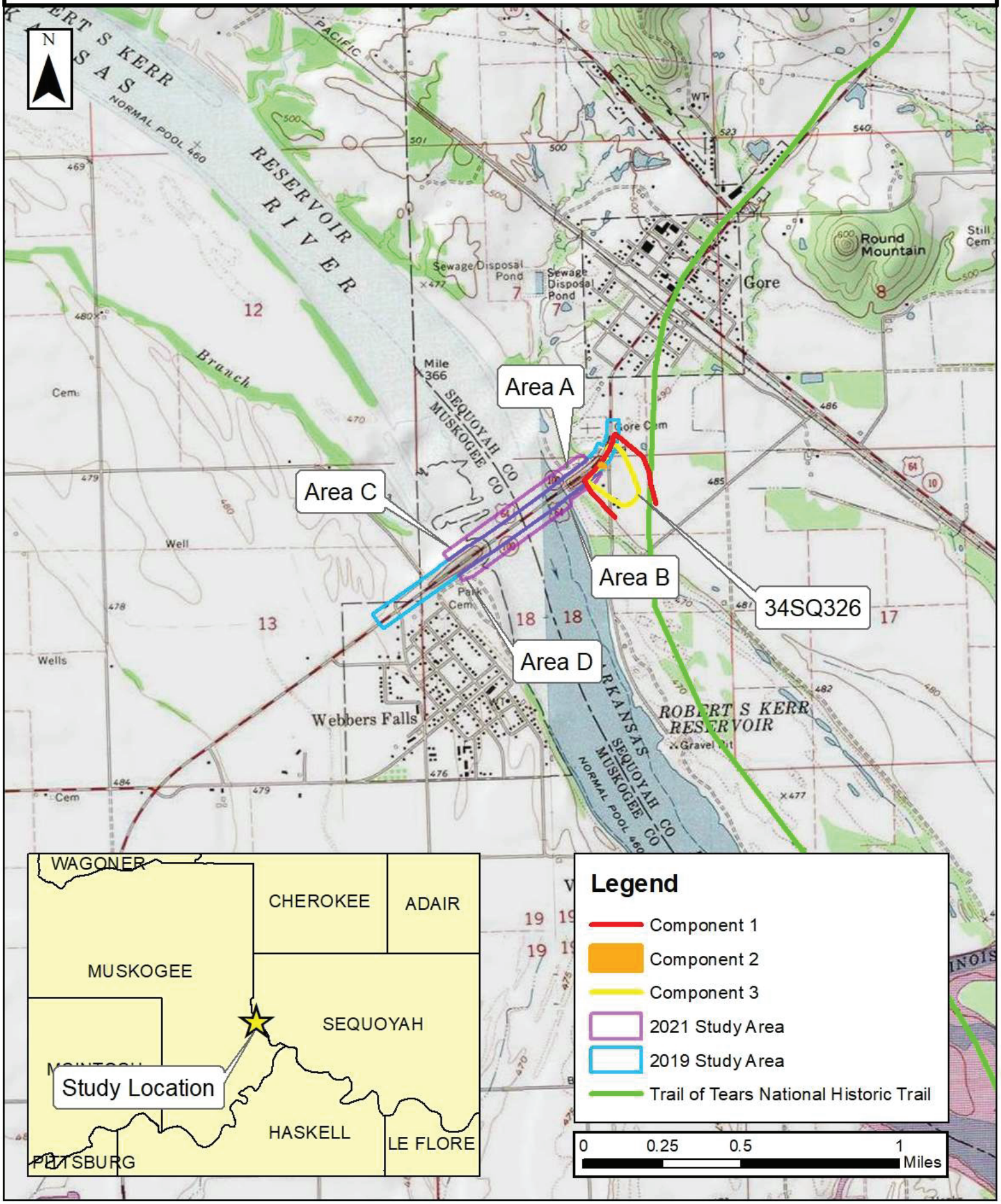
Area A had six shovel tests excavated within it. Soils observed best match the Oklared unit, as the shovel tests typically consisted of a brown (10YR 4/3) sandy loam ranging in depth from 8 to 65 cmbs, which overlay a dark brown (10YR 3/3) sandy clay loam. Area B had previously been subjected to pedestrian survey with shovel tests during the 2019 investigations when site 34SQ326 was revisited and delineated. Area C and D were both previously impacted by construction activities related to the bridge, residential lots, and industrial areas including grading, leveling, clearing of brush, construction of a drainage ditch, and the buildup of fill for the bridge. As such, the western side of the revised study area was pedestrian surveyed but no shovel tests were excavated in Area C and D.

Pursuant to 36 CFR 800.4 and based upon the results of our initial 2019 and updated 2021 investigations, it remains our opinion that no historic properties within the study area will be affected and the proposed project is recommended to proceed as planned.

Figure 1. Cultural resources within the additional study area of J/P 32100(04), Muskogee County, Oklahoma.

Source: Webbers Falls and Gore USGS 7.5-Minute Topographic

RABA KISTNER



OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

September 28, 2021

To: ODOT Cultural Resources Program

From: Rhonda S. Fair, Director – Tribal Coordination

Re: Summary of tribal consultation for Muskogee County JP# 32100(04) - Bridge replacement and approach improvements on State Highway 100 over the Arkansas River at the Muskogee/Sequoyah County line

---

A file search conducted on 5/16/2021 and found no known potentially sensitive areas in the project area or its vicinity.

The following tribes were consulted on 5/24/2019, 5/1/2020, 4/27/2021, and 8/23/2021:

- 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

The following comments were received:

- Alabama Quassarte Tribal Town: Concur with the bridge replacement project (9/7/2021).
- Cherokee Nation: Project is in close proximity to several sites important to the Cherokee Nation (5/29/2020). Project is in close proximity to cultural resources, avoidance areas requested (5/25/2021). Will provide comments when cultural resources report is received (5/28/2021). Project intersects or is in close proximity to Cherokee resources, avoidance requested (9/24/2021).
- Osage Nation: Project area is bisected by the Illinois-White River Trace and is 1.25 miles southwest of the Osage Trace, expedient graves and hunting camps may be in area (7/3/2019). Cannot concur with no effect finding because 34SQ326 was not fully delineated and Osage Nation THPO does not concur with findings of determination based on portions of sites, thus requests site avoided, requests copies of shovel test logs and maps (6/6/2020).
- Thlopthlocco Tribal Town: Unaware of any culturally significant sites within the area of potential effect, no historic properties affected (4/29/2021).
- United Keetoowah Band: No adverse effects (2/23/2021).

Based on the file search and tribal comments, the following areas are listed for avoidance by contractor-selected off-project facilities:

- T12N R21E
  - Section 7: SE
  - Section 18: NE SW and SW NW
- T12N R20E
  - Section 13: ALL

OKLAHOMA DEPARTMENT OF TRANSPORTATION

Tribal Coordination
200 N.E. 21st Street, Room 3A8
Oklahoma City, OK 73105-3204
www.odot.org

May 24, 2019

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

Dear Chief Harjo:

Re: Section 106 consultation for proposed Federal-Aid undertaking in Muskogee County, Oklahoma; JP# 32100(04)

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

County	Muskogee	**Job Piece #**	32100(04)	**Anticipated Let Date**	2023
Project description	Bridge replacement and approach improvements on State Highway 100 over the Arkansas River at the Muskogee/Sequoyah County line				
Location	Sec 18 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 405.521.3632 or email at rfair@odot.org.

Sincerely,

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

cc: Janice Lowe

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

May 1, 2020

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

Dear Chief Harjo:

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 #**	32100(04)	**Anticipated Let Date**	2023
Project description	Bridge replacement and approach improvements on State Highway 100 over the Arkansas River at the Muskogee/Sequoyah County line				

In accordance with 36 CFR Part 800.4, the proposed project area 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 reexamined previously recorded site 34SQ326 and updated the documentation for the site. The current investigation confirmed that 34SQ326 is not eligible for inclusion in the National Register of Historic Places. Gore Cemetery is outside of but adjacent to the project area and is not eligible for inclusion in the NRHP. 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: Janice Lowe

Rhonda Fair

From: Ben Yahola <ben.yahola@alabama-quassarte.org>
Sent: Tuesday, September 7, 2021 1:45 PM
To: Rhonda Fair
Subject: [EXTERNAL] Bridge replacement.improvements Hwy100/Arkansas River Musko.Seq Cty line

Ronda S. Fair

I have reviewed the information provided and concur with the bridge replacement project.

Thank you,

Ben Yahola

AQTHPO/Cultural Director

405-452-3881 x 2014

CONFIDENTIAL: This email and any files transmitted with it are confidential and intended solely for the use of the individual or entity to whom they are addressed. If you have received this email in error please notify the system manager. This message contains confidential information and is intended only for the individual named. If you are not the named addressee you should not disseminate, distribute or copy this e-mail. Please notify the sender immediately by e-mail if you have received this e-mail by mistake and delete this e-mail from your system. If you are not the intended recipient you are notified that disclosing, copying, distributing or taking any action in reliance on the contents of this information is strictly prohibited.

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

April 27, 2021

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

Dear Chief Harjo:

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is continuing 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 #**	32100(04)	**Anticipated Let Date**	2026
Project description	Bridge replacement and approach improvements on State Highway 100 over the Arkansas River at the Muskogee/Sequoyah County line				

Information regarding this project was sent to you initially on May 24, 2019. Thereafter, a cultural resources survey was conducted for the area of potential effect, and the cultural resources report was provided to you on May 1, 2020.

Since that time, the study area for the project expanded to include areas not previously surveyed. Please see the enclosed map illustrating those areas. We are conducting studies in the very near future in order to cover these additional areas and will provide you with an additional cultural resources report as soon as it is available.

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: Janice Lowe

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

August 23, 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 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 #**	32100(04)	**Anticipated Let Date**	2026
Project description	Bridge replacement and approach improvements on State Highway 100 over the Arkansas River at the Muskogee/Sequoyah County line – EXPANDED STUDY AREA				

In accordance with 36 CFR Part 800.4, the proposed project area was surveyed for cultural resources in order to identify historic properties that may be affected by the undertaking. A copy of the supplemental report is enclosed.

In 2020, we submitted the cultural resources report for the above referenced project to you for review. At that time, we determined that the project would have no effect to historic properties. Subsequently, the area of potential effect was expanded in four areas. Additional cultural resources investigations were conducted in these areas, and the results of the study are in keeping with our initial findings. 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

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

cc: Ben Yahola

OKLAHOMA DEPARTMENT OF TRANSPORTATION

Tribal Coordination
200 N.E. 21st Street, Room 3A8
Oklahoma City, OK 73105-3204
www.odot.org

May 24, 2019

Caddo Nation
Attn: Chairman Tamara Francis
P.O. Box 487
Binger, OK 73009

Dear Chairman Francis:

Re: Section 106 consultation for proposed Federal-Aid undertaking in Muskogee County, Oklahoma; JP# 32100(04)

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

County	Muskogee	**Job Piece #**	32100(04)	**Anticipated Let Date**	2023
Project description	Bridge replacement and approach improvements on State Highway 100 over the Arkansas River at the Muskogee/Sequoyah County line				
Location	Sec 18 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 405.521.3632 or email at rfair@odot.org.

Sincerely,

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

cc: Tribal Historic Preservation Office

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

May 1, 2020

Caddo Nation
Attn: Chairman Tamara Francis
P.O. Box 487
Binger, OK 73009

Dear Chairman Francis:

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 #**	32100(04)	**Anticipated Let Date**	2023
Project description	Bridge replacement and approach improvements on State Highway 100 over the Arkansas River at the Muskogee/Sequoyah County line				

In accordance with 36 CFR Part 800.4, the proposed project area 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 reexamined previously recorded site 34SQ326 and updated the documentation for the site. The current investigation confirmed that 34SQ326 is not eligible for inclusion in the National Register of Historic Places. Gore Cemetery is outside of but adjacent to the project area and is not eligible for inclusion in the NRHP. 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: Tribal Historic Preservation Office

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

April 27, 2021

Caddo Nation
Attn: Chairman Tamara Francis
P.O. Box 487
Binger, OK 73009

Dear Chairman Francis:

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is continuing 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 #**	32100(04)	**Anticipated Let Date**	2026
Project description	Bridge replacement and approach improvements on State Highway 100 over the Arkansas River at the Muskogee/Sequoyah County line				

Information regarding this project was sent to you initially on May 24, 2019. Thereafter, a cultural resources survey was conducted for the area of potential effect, and the cultural resources report was provided to you on May 1, 2020.

Since that time, the study area for the project expanded to include areas not previously surveyed. Please see the enclosed map illustrating those areas. We are conducting studies in the very near future in order to cover these additional areas and will provide you with an additional cultural resources report as soon as it is available.

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

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

August 23, 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 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 #**	32100(04)	**Anticipated Let Date**	2026
Project description	Bridge replacement and approach improvements on State Highway 100 over the Arkansas River at the Muskogee/Sequoyah County line – EXPANDED STUDY AREA				

In accordance with 36 CFR Part 800.4, the proposed project area was surveyed for cultural resources in order to identify historic properties that may be affected by the undertaking. A copy of the supplemental report is enclosed.

In 2020, we submitted the cultural resources report for the above referenced project to you for review. At that time, we determined that the project would have no effect to historic properties. Subsequently, the area of potential effect was expanded in four areas. Additional cultural resources investigations were conducted in these areas, and the results of the study are in keeping with our initial findings. 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: Tribal Historic Preservation Office

OKLAHOMA DEPARTMENT OF TRANSPORTATION

Tribal Coordination
200 N.E. 21st Street, Room 3A8
Oklahoma City, OK 73105-3204
www.odot.org

May 24, 2019

Cherokee Nation
Attn: Principal Chief Bill John Baker
P.O. Box 948
Tahlequah, OK 74465

Dear Principal Chief Baker:

Re: Section 106 consultation for proposed Federal-Aid undertaking in Muskogee County, Oklahoma; JP# 32100(04)

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

County	Muskogee	**Job Piece #**	32100(04)	**Anticipated Let Date**	2023
Project description	Bridge replacement and approach improvements on State Highway 100 over the Arkansas River at the Muskogee/Sequoyah County line				
Location	Sec 18 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 405.521.3632 or email at rfair@odot.org.

Sincerely,

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

cc: Elizabeth Toombs, THPO

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

May 1, 2020

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	**Job Piece #**	32100(04)	**Anticipated Let Date**	2023
Project description	Bridge replacement and approach improvements on State Highway 100 over the Arkansas River at the Muskogee/Sequoyah County line				

In accordance with 36 CFR Part 800.4, the proposed project area 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 reexamined previously recorded site 34SQ326 and updated the documentation for the site. The current investigation confirmed that 34SQ326 is not eligible for inclusion in the National Register of Historic Places. Gore Cemetery is outside of but adjacent to the project area and is not eligible for inclusion in the NRHP. 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

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Office of the Chief

Chuck Hoskin Jr.
Principal Chief

Bryan Warner
Deputy Principal Chief

May 29, 2020

Rhonda Fair
Oklahoma Department of Transportation
Tribal Coordination
200 N.E. 21st Street, Room 3A8
Oklahoma City, OK 73105-3204

Re: JP 32100(04), Proposed bridge replacement and approach improvements on State Highway 100 over the Arkansas River at the Muskogee/Sequoyah County line

Dr. Rhonda Fair:

The Cherokee Nation (Nation) is in receipt of your correspondence about and related report for **JP 32100(04)**, and appreciates the opportunity to provide comment upon this project. Please allow this letter to serve as the Nation's interest in acting as a consulting party to this proposed project.

The Nation maintains databases and records of cultural, historic, and pre-historic resources in this area. Our Historic Preservation Office reviewed this project, cross referenced the project's legal description against our information, and found instances where this project is within close proximity to the following resources:

- The CHEROKEE TRAIL OF TEARS, Drew Detachment in the SE/4, S7, T12N, R21E;
- Gore Cemetery in the SW/4 SE/4, S7, T12N, R21E;
- A Trail of Tears marker in the NE/4 SW/4, S18, T12N, R20E;
- Vann Cemetery in the SW/4 NW/4, S18, T12N, R20E. Lynch and Park Cemetery are alternative names for this resource;
- Culturally sensitive resources located in S13, T12N, R21E.

To complete the proposed review, this Office requests a copy of the related State Historic Preservation Office's comments.

Additionally, the Nation requests that the Oklahoma Department of Transportation conduct appropriate inquiries with other pertinent Historic Preservation Offices regarding historic and prehistoric resources not included in the Nation's databases or records.

If you require additional information or have any questions, please contact me at your convenience. Thank you for your time and attention to this matter.

Wado,



Elizabeth Toombs, Tribal Historic Preservation Officer
Cherokee Nation Tribal Historic Preservation Office
elizabeth-toombs@cherokee.org
918.453.5389

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

April 27, 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 continuing 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 #**	32100(04)	**Anticipated Let Date**	2026
Project description	Bridge replacement and approach improvements on State Highway 100 over the Arkansas River at the Muskogee/Sequoyah County line				

Information regarding this project was sent to you initially on May 24, 2019. Thereafter, a cultural resources survey was conducted for the area of potential effect, and the cultural resources report was provided to you on May 1, 2020.

Since that time, the study area for the project expanded to include areas not previously surveyed. Please see the enclosed map illustrating those areas. We are conducting studies in the very near future in order to cover these additional areas and will provide you with an additional cultural resources report as soon as it is available.

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

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Office of the Chief

Chuck Hoskin Jr.
Principal Chief

Bryan Warner
Deputy Principal Chief

May 25, 2021

Rhonda Fair
Oklahoma Department of Transportation
Tribal Coordination
200 N.E. 21st Street, Room 3A8
Oklahoma City, OK 73105-3204

Re: JP 32100(04), Proposed bridge replacement and approach improvements on State Highway 100 over the Arkansas River at the Muskogee/Sequoyah County line.

Dr. Rhonda Fair:

The Cherokee Nation (Nation) is in receipt of your correspondence about **JP 32100(04)**, and appreciates the opportunity to provide comment upon this project. Please allow this letter to serve as the Nation's interest in acting as a consulting party to this proposed project.

The Nation maintains databases and records of cultural, historic, and pre-historic resources in this area. Our Historic Preservation Office reviewed this project, cross referenced the project's legal description against our information, and found instances where this project intersects or is within close proximity to the following resources:

- The CHEROKEE TRAIL OF TEARS, Drew Detachment in the SE/4 S7, T12N, R21E;
- A Trail of Tears marker in the NE/4 SW/4 S18, T12, R21E; and
- Culturally sensitive resources located in the following areas:
  - SW/4 NW/4 S18, T12N, R21E;
  - SW/4 SE/4 S7, T12N, R21E; and
  - S13, T12N, R20E.

Thus, the Nation recommends that a cultural resources survey is conducted for this project, and requests a copy of the related report with comments from the State Historic Preservation Office. The Nation requires that cultural resources survey personnel and reports meet the Secretary of Interior's standards and guidelines.

However, the Nation requests that the Oklahoma Department of Transportation halt all project activities immediately and re-contact our Offices for further consultation if items of cultural significance are discovered during the course of this survey.

Additionally, the Nation requests that the Oklahoma Department of Transportation conduct appropriate inquiries with other pertinent Historic Preservation Offices regarding historic and prehistoric resources not included in the Nation's databases or records.

If you require additional information or have any questions, please contact me at your convenience. Thank you for your time and attention to this matter.

Wado,



Elizabeth Toombs, Tribal Historic Preservation Officer
Cherokee Nation Tribal Historic Preservation Office
elizabeth-toombs@cherokee.org
918.453.5389

Rhonda Fair

From: Elizabeth Toombs <elizabeth-toombs@cherokee.org>
Sent: Friday, May 28, 2021 8:18 AM
To: Rhonda Fair
Subject: [EXTERNAL] RE: Updated CR survey request / scope and hours: SH-100 over the Arkansas, Muskogee Co., JP 32100(04)

Thanks so much, Rhonda. This Office can provide comments on the entirety of the APE when the subsequent report is complete, but please let me know if ODOT would prefer to have comments on record for this initial portion. Thank you for your time and any advisement.

Wado,

Elizabeth Toombs, Tribal Historic Preservation Officer
Cherokee Nation
Tribal Historic Preservation Office
PO Box 948
Tahlequah, OK 74465-0948
918.453.5389

From: Rhonda Fair <RFair@odot.org>
Sent: Wednesday, May 26, 2021 2:59 PM
To: Elizabeth Toombs <elizabeth-toombs@cherokee.org>
Subject: <EXTERNAL> FW: Updated CR survey request / scope and hours: SH-100 over the Arkansas, Muskogee Co., JP 32100(04)

****
NOTICE: THIS EMAIL CONTAINS AN ATTACHMENT SENT FROM AN EXTERNAL SENDER.
IF YOU DO NOT KNOW THE SENDER OR WERE NOT EXPECTING THIS EMAIL,
DO NOT OPEN ANY EMAIL ATTACHMENTS AND DELETE THIS MESSAGE.
Thank you: The Cherokee Nation - Information Technology Department
****

Good afternoon Elizabeth,

Attached are the SHPO and OAS letters from last year for this project. My apologies for not getting them to you sooner.

All the best,
Rhonda

From: Greg Maggard <GMaggard@odot.org>
Sent: Wednesday, May 26, 2021 8:11 AM
To: Rhonda Fair <RFair@odot.org>
Cc: Nicholas Beale <NBEALE@ODOT.ORG>
Subject: Re: Updated CR survey request / scope and hours: SH-100 over the Arkansas, Muskogee Co., JP 32100(04)

SHPO and OAS responses are attached from the 2020 full study.

I think this is what you are looking for, but let me know if it is something else.

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

August 23, 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 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 #**	32100(04)	**Anticipated Let Date**	2026
Project description	Bridge replacement and approach improvements on State Highway 100 over the Arkansas River at the Muskogee/Sequoyah County line – EXPANDED STUDY AREA				

In accordance with 36 CFR Part 800.4, the proposed project area was surveyed for cultural resources in order to identify historic properties that may be affected by the undertaking. A copy of the supplemental report is enclosed.

In 2020, we submitted the cultural resources report for the above referenced project to you for review. At that time, we determined that the project would have no effect to historic properties. Subsequently, the area of potential effect was expanded in four areas. Additional cultural resources investigations were conducted in these areas, and the results of the study are in keeping with our initial findings. 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

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Chuck Hoskin Jr.
Principal Chief
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Bryan Warner
Deputy Principal Chief
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September 21, 2021

Rhonda Fair
Oklahoma Department of Transportation
200 N.E. 21st Street
Oklahoma City, OK 73105

Re: JP 32100(04), Expanded Study Area for Bridge replacement and approach improvements on State Highway 100 over the Arkansas River at the Muskogee/Sequoyah County line

Dr. Rhonda Fair:

The Cherokee Nation (Nation) is in receipt of your correspondence about and related report for **JP 32100(04)**, and appreciates the opportunity to provide comment upon this project. Please allow this letter to serve as the Nation's interest in acting as a consulting party to this proposed project.

The Nation maintains databases and records of cultural, historic, and pre-historic resources in this area. Our Historic Preservation Office reviewed this project, cross referenced the project's legal description against our information, and found instances where this project intersects or adjoins such resources.

To continue our review, this Office respectfully requests a copy of the related comments from the State Historic Preservation Office and Oklahoma Archeological Survey.

Additionally, the Nation requests that the Oklahoma Department of Transportation conduct appropriate inquiries with other pertinent Tribal and Historic Preservation Offices regarding historic and prehistoric resources not included in the Nation's databases or records.

If you require additional information or have any questions, please contact me at your convenience. Thank you for your time and attention to this matter.

Wado,

Elizabeth Toombs

Elizabeth Toombs, Tribal Historic Preservation Officer
Cherokee Nation Tribal Historic Preservation Office
elizabeth-toombs@cherokee.org
918.453.5389

Rhonda Fair

From: Rhonda Fair
Sent: Thursday, September 23, 2021 4:46 PM
To: Elizabeth Toombs
Subject: RE: Updated CR survey request / scope and hours: SH-100 over the Arkansas, Muskogee Co., JP 32100(04)
Attachments: Muskogee 32100(04) SHPO OAS letters.pdf

Hi Elizabeth,

Attaches, please find the SHPO and OAS letters for the above referenced project.

If you need anything else, please let me know.

All the best,
Rhonda

From: Elizabeth Toombs <elizabeth-toombs@cherokee.org>
Sent: Tuesday, September 21, 2021 11:20 AM
To: Rhonda Fair <RFair@odot.org>
Subject: [EXTERNAL] RE: Updated CR survey request / scope and hours: SH-100 over the Arkansas, Muskogee Co., JP 32100(04)

Thank for the report for the updated project portion, Rhonda. Attached is Cherokee Nation's response to the proposed undertaking. Please let me know if there are any questions or concerns.

Wado,

Elizabeth Toombs, Tribal Historic Preservation Officer
Cherokee Nation
Tribal Historic Preservation Office
PO Box 948
Tahlequah, OK 74465-0948
918.453.5389

From: Rhonda Fair <RFair@odot.org>
Sent: Monday, August 23, 2021 4:33 PM
To: Elizabeth Toombs <elizabeth-toombs@cherokee.org>
Subject: <EXTERNAL> RE: Updated CR survey request / scope and hours: SH-100 over the Arkansas, Muskogee Co., JP 32100(04)

****
NOTICE: THIS EMAIL CONTAINS AN ATTACHMENT SENT FROM AN EXTERNAL SENDER.
IF YOU DO NOT KNOW THE SENDER OR WERE NOT EXPECTING THIS EMAIL,
DO NOT OPEN ANY EMAIL ATTACHMENTS AND DELETE THIS MESSAGE.
Thank you: The Cherokee Nation - Information Technology Department
****

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Chuck Hoskin Jr.
Principal Chief
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Bryan Warner
Deputy Principal Chief
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September 24, 2021

Rhonda Fair
Oklahoma Department of Transportation
Tribal Coordination
200 N.E. 21st Street, Room 3A8
Oklahoma City, OK 73105-3204

Re: JP 32100(04), Expanded Study Area for Bridge replacement and approach improvements on State Highway 100 over the Arkansas River at the Muskogee/Sequoyah County line

Dr. Rhonda Fair:

The Cherokee Nation (Nation) is in receipt of your correspondence about and related report for **JP 32100(04)**, and appreciates the opportunity to provide comment upon this project. Please allow this letter to serve as the Nation's continued interest in acting as a consulting party to this proposed project.

The Nation maintains databases and records of cultural, historic, and pre-historic resources in this area. Our Historic Preservation Office reviewed this project, cross referenced the project's legal description against our information, and found instances where this project intersects or is within close proximity to the following resources:

- The CHEROKEE TRAIL OF TEARS, Drew Detachment, in the SE/4 S7, T12N, R21E;
- A Trail of Tears marker in the NE/4 SW/4 S18, T12, R21E; and
- Culturally sensitive resources located in the following areas:
  - SW/4 NW/4 S18, T12N, R21E;
  - SW/4 SE/4 S7, T12N, R21E; and
  - S13, T12N, R20E.

These resources are not located within the Area of Potential Effects (APE) according to the related report. Thus, this Office does not object to the project proceeding as long as the following stipulations are observed:

1) The Nation requests that the aforementioned resources are protected from the project's direct and indirect activities, such as equipment staging and borrow pits, throughout the course of the project;

2) The Nation requests that Oklahoma Department of Transportation (ODOT) re-contact this Office for additional consultation if there are any changes to the scope of or activities within the APE;

3) The Nation requests that ODOT halt all project activities immediately and re-contact our Offices for further consultation if items of cultural significance are discovered during the course of this project; and

4) The Nation requests that ODOT conduct appropriate inquiries with other pertinent Historic Preservation Offices regarding historic and prehistoric resources not included in the Nation's databases or records.

If you require additional information or have any questions, please contact me at your convenience. Thank you for your time and attention to this matter.

Wado,



Elizabeth Toombs, Tribal Historic Preservation Officer
Cherokee Nation Tribal Historic Preservation Office
elizabeth-toombs@cherokee.org
918.453.5389

OKLAHOMA DEPARTMENT OF TRANSPORTATION

Tribal Coordination
200 N.E. 21st Street, Room 3A8
Oklahoma City, OK 73105-3204
www.odot.org

May 24, 2019

Kialegee Tribal Town
Attn: Mekko Jeremiah Hobia
P.O. Box 332
Wetumka, OK 74883

Dear Mekko Hobia:

Re: Section 106 consultation for proposed Federal-Aid undertaking in Muskogee County, Oklahoma; JP# 32100(04)

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

County	Muskogee	**Job Piece #**	32100(04)	**Anticipated Let Date**	2023
Project description	Bridge replacement and approach improvements on State Highway 100 over the Arkansas River at the Muskogee/Sequoyah County line				
Location	Sec 18 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 405.521.3632 or email at rfair@odot.org.

Sincerely,

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

cc: Historic Preservation Office

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

May 1, 2020

Kialegee Tribal Town
Attn: Mekko Jeremiah Hobia
P.O. Box 332
Wetumka, OK 74883

Dear Mekko Hobia:

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 #**	32100(04)	**Anticipated Let Date**	2023
Project description	Bridge replacement and approach improvements on State Highway 100 over the Arkansas River at the Muskogee/Sequoyah County line				

In accordance with 36 CFR Part 800.4, the proposed project area 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 reexamined previously recorded site 34SQ326 and updated the documentation for the site. The current investigation confirmed that 34SQ326 is not eligible for inclusion in the National Register of Historic Places. Gore Cemetery is outside of but adjacent to the project area and is not eligible for inclusion in the NRHP. 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

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

April 27, 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 continuing 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 #**	32100(04)	**Anticipated Let Date**	2026
Project description	Bridge replacement and approach improvements on State Highway 100 over the Arkansas River at the Muskogee/Sequoyah County line				

Information regarding this project was sent to you initially on May 24, 2019. Thereafter, a cultural resources survey was conducted for the area of potential effect, and the cultural resources report was provided to you on May 1, 2020.

Since that time, the study area for the project expanded to include areas not previously surveyed. Please see the enclosed map illustrating those areas. We are conducting studies in the very near future in order to cover these additional areas and will provide you with an additional cultural resources report as soon as it is available.

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

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

August 23, 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 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 #**	32100(04)	**Anticipated Let Date**	2026
Project description	Bridge replacement and approach improvements on State Highway 100 over the Arkansas River at the Muskogee/Sequoyah County line – EXPANDED STUDY AREA				

In accordance with 36 CFR Part 800.4, the proposed project area was surveyed for cultural resources in order to identify historic properties that may be affected by the undertaking. A copy of the supplemental report is enclosed.

In 2020, we submitted the cultural resources report for the above referenced project to you for review. At that time, we determined that the project would have no effect to historic properties. Subsequently, the area of potential effect was expanded in four areas. Additional cultural resources investigations were conducted in these areas, and the results of the study are in keeping with our initial findings. 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

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

cc: Historic Preservation Office

OKLAHOMA DEPARTMENT OF TRANSPORTATION

Tribal Coordination
200 N.E. 21st Street, Room 3A8
Oklahoma City, OK 73105-3204
www.odot.org

May 24, 2019

Muscogee (Creek) Nation
Attn: Principal Chief James Floyd
P.O. Box 580
Okmulgee, OK 74447

Dear Principal Chief Floyd:

Re: Section 106 consultation for proposed Federal-Aid undertaking in Muskogee County, Oklahoma; JP# 32100(04)

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

County	Muskogee	**Job Piece #**	32100(04)	**Anticipated Let Date**	2023
Project description	Bridge replacement and approach improvements on State Highway 100 over the Arkansas River at the Muskogee/Sequoyah County line				
Location	Sec 18 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 405.521.3632 or email at rfair@odot.org.

Sincerely,

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

cc: Tribal Historic Preservation Office

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

May 1, 2020

Muscogee (Creek) 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 conducting Section 106 consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following Federal-Aid undertaking.

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Project description	Bridge replacement and approach improvements on State Highway 100 over the Arkansas River at the Muskogee/Sequoyah County line				

In accordance with 36 CFR Part 800.4, the proposed project area 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 reexamined previously recorded site 34SQ326 and updated the documentation for the site. The current investigation confirmed that 34SQ326 is not eligible for inclusion in the National Register of Historic Places. Gore Cemetery is outside of but adjacent to the project area and is not eligible for inclusion in the NRHP. 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: Tribal Historic Preservation Office

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

April 27, 2021

Muscogee (Creek) 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 continuing Section 106 consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following Federal-Aid undertaking.

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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

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

August 23, 2021

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

Dear Chief 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.

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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.

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Sincerely,

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

cc: Tribal Historic Preservation Office

OKLAHOMA DEPARTMENT OF TRANSPORTATION

Tribal Coordination
200 N.E. 21st Street, Room 3A8
Oklahoma City, OK 73105-3204
www.odot.org

May 24, 2019

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

Dear Principal Chief Standing Bear:

Re: Section 106 consultation for proposed Federal-Aid undertaking in Muskogee County, Oklahoma; JP# 32100(04)

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

County	Muskogee	**Job Piece #**	32100(04)	**Anticipated Let Date**	2023
Project description	Bridge replacement and approach improvements on State Highway 100 over the Arkansas River at the Muskogee/Sequoyah County line				
Location	Sec 18 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 405.521.3632 or email at rfair@odot.org.

Sincerely,

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

cc: Tribal Historic Preservation Office

Osage Nation Historic Preservation Office

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Date: **July 3, 2019** **File: 1819-4063OK-5**

RE: **ODOT, 31200(04), Bridge Replacement and Approach Improvements on SH-100 over the Arkansas River at the Muskogee/Sequoyah County Line, Muskogee County, Oklahoma**

Oklahoma Department of Transportation
Rhonda Fair
200 NE 21st Street, Room 3A8
Oklahoma City, OK 73105-3204

Dear Dr. Fair,

The Osage Nation Historic Preservation Office has received notification and accompanying information for the proposed project **ODOT, 31200(04), Bridge Replacement and Approach Improvements on SH-100 over the Arkansas River at the Muskogee/Sequoyah County Line, Muskogee County, Oklahoma**. The proposed undertaking is bisected by the Illinois-White River Trace and is located approximately 1.25 miles southwest of the Osage Trace. Expedient graves and temporary hunting camps may be located along these trails. I understand that the cultural resources survey is scheduled to be performed in the near future. This office looks forward to reviewing the final report.

The Osage Nation requests that the report include a project site plan map indicating the locations of screened shovel tests labeled by their field identification numbers and a table listing shovel test locations, width (cm), actual depth (cm) of each level, soils of each level, and results. Shovel test minimum width is 30 cm. Shovel test minimum depth is to 50 cm or sterile soil, whichever is encountered first. If terminated before sterile soil is reached, please provide an explanation either in the text of in the shovel test log.

In accordance with the National Historic Preservation Act, (NHPA) [16 U.S.C. 470 §§ 470-470w-6] 1966, undertakings subject to the review process are referred to in S101 (d) (6) (A), which clarifies that historic properties may have religious and cultural significance to Indian tribes. Additionally, Section 106 of NHPA requires Federal agencies to consider the effects of their actions on historic properties (36 CFR Part 800) as does the National Environmental Policy Act (43 U.S.C. 4321 and 4331-35 and 40 CFR 1501.7(a) of 1969). The Osage Nation has a vital interest in protecting its historic and ancestral cultural resources, which are protected under the NHPA, NEPA, the Native American Graves Protection and Repatriation Act, and Osage law, and appreciates your consideration of the provided information in the planning process.

Should you have any questions or need any additional information, please feel free to contact me at the number listed below. Thank you for consulting with the Osage Nation on this matter.

Sincerely,

James Munkres
Archaeologist

627 Grandview Ave. * Pawhuska, OK 74056 Telephone 918-287-5328 * Fax 918-287-5376
HistoricPreservation@osagenation-nsn.gov

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

May 1, 2020

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	**Job Piece #**	32100(04)	**Anticipated Let Date**	2023
Project description	Bridge replacement and approach improvements on State Highway 100 over the Arkansas River at the Muskogee/Sequoyah County line				

In accordance with 36 CFR Part 800.4, the proposed project area 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 reexamined previously recorded site 34SQ326 and updated the documentation for the site. The current investigation confirmed that 34SQ326 is not eligible for inclusion in the National Register of Historic Places. Gore Cemetery is outside of but adjacent to the project area and is not eligible for inclusion in the NRHP. 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: Tribal Historic Preservation Office

Rhonda Fair

From: Johnnie Jacobs <johnnie.jacobs.ctr@osagenation-nsn.gov>
Sent: Saturday, June 6, 2020 2:11 PM
To: Rhonda Fair
Subject: [External] 1920-1368OK-10, ODOT, SH-100: Bridge over the Arkansas River at the Muskogee/Sequoyah County Line, Muskogee and Sequoyah Co.

Date: June 6, 2020 **File: 1920-1368OK-10**

RE: BIA, ODOT, SH-100: Bridge over the Arkansas River at the Muskogee/Sequoyah County Line, Muskogee County, Job Piece Number 32100(04), Project Number J3-2100(004), Bridge Replacement, Muskogee and Sequoyah Counties

Oklahoma Department of Transportation
Dr. Rhonda Fair
200 N.E. 21st Street
Oklahoma City, OK 73105-3204

Dear Dr. Fair,

The Osage Nation Historic Preservation Office has evaluated your submission and cannot concur with the finding "no effect" for the proposed BIA, ODOT, SH-100: Bridge over the Arkansas River at the Muskogee/Sequoyah County Line, Muskogee County, Job Piece Number 32100(04), Project Number J3-2100(004), Bridge Replacement, Muskogee and Sequoyah Counties. Because site 34SQ326 has not been fully delineated, we are unable to access the possible effect to this site. **The Osage Nation does not make findings of determination based on portions of sites, thus we request this site to be avoided.** The Nation also request copies of the shovel test maps and logs for the entire project.

In accordance with the National Historic Preservation Act, (NHPA) [16 U.S.C. 470 §§ 470-470w-6] 1966, undertakings subject to the review process are referred to in S101 (d) (6) (A), which clarifies that historic properties may have religious and cultural significance to Indian tribes. Additionally, Section 106 of NHPA requires Federal agencies to consider the effects of their actions on historic properties (36 CFR Part 800) as does the National Environmental Policy Act (43 U.S.C. 4321 and 4331-35 and 40 CFR 1501.7(a) of 1969).

The Osage Nation has a vital interest in protecting its historic and ancestral cultural resources which are protected under the NHPA, NEPA, the Native American Graves Protection and Repatriation Act, and Osage law, and appreciates your consideration of the provided information in the planning process.

Should you have any questions or need any additional information please feel free to contact me at the number and/or email address listed below. Thank you for consulting with the Osage Nation on this matter.

Thank you,

Miss Johnnie Jacobs
Historic Preservation Specialist
Osage Nation Historic Preservation Office
627 Grandview Avenue
Pawhuska, OK 74056

Rhonda Fair

From: Rhonda Fair
Sent: Monday, June 8, 2020 2:58 PM
To: Johnnie Jacobs
Cc: Scott Sundermeyer (SSundermeyer@odot.org); Greg Maggard (GMaggard@odot.org); Nicholas Beale (NBEALE@ODOT.ORG)
Subject: RE: 1920-1368OK-10, ODOT, SH-100: Bridge over the Arkansas River at the Muskogee/Sequoyah County Line, Muskogee and Sequoyah Co.

Dear Johnnie,

Thank you for the response regarding the above referenced project.

Site 34SQ326 is a previously recorded archaeological site reexamined and documented during this investigation. The site was originally assessed as not eligible for the National Register of Historic Places (NRHP). ODOT's investigation added to what is known about 34SQ326 and extended the site's boundaries, but did not change the original assessment, and the site continues to be assessed as not eligible for the NRHP.

More specifically, Component 1 (the prehistoric component) is represented by a moderate to low density of lithic debitage lacking any formal tools or features recovered from a highly disturbed context. The current investigations confirmed the original assessment that the prehistoric component is not eligible for inclusion in the NRHP, pursuant to 36 CFR 60.4.

Component 2 is the remnant of a small residential occupation (ca. 1835-1867) represented in only three shovel tests. Pursuant to 36 CFR 60.4, due to paucity of artifacts, lack of features, overprinting and mixture of artifacts from Component 3, and the overall highly disturbed context, Component 2 does not retain the integrity necessary to convey significance and is not eligible for inclusion on the NRHP.

Component 3 consists of the remnants of a late-nineteenth to mid-twentieth century occupation located on the slopes of a natural levee and now occupied by a mobile home. This component lacks features and is extensively disturbed due to modern agricultural practices. Pursuant to 36 CFR 60.4, due to lack of diagnostic artifacts or features and modern disturbances Component 3 is not eligible for inclusion in the NRHP.

While archaeologists fully delineated Components 2 and 3, they were unable to determine the exact boundaries of Component 1 as doing so was far beyond the scope of work for this project. Additionally, their efforts extended several hundred meters beyond the study area and to continue on would have required permission of additional landowners which had not been secured prior to field investigations due to their distance from the actual project location.

Given the uncertainty regarding the boundaries of Component 1, the portion of 34SQ326 that extends outside of the area of potential effect is listed for avoidance.

Regarding your request for shovel test logs and maps, I am unable to provide the requested information at this time.

All the best,

Rhonda

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

Rhonda Fair

From: Johnnie Jacobs <johnnie.jacobs.ctr@osagenation-nsn.gov>
Sent: Tuesday, June 9, 2020 1:57 PM
To: Rhonda Fair
Subject: [EXTERNAL] RE: 1920-1368OK-10, ODOT, SH-100: Bridge over the Arkansas River at the Muskogee/Sequoyah County Line, Muskogee and Sequoyah Co.

Rhonda, Thank you for your response and providing the additional information. However, the Osage Nation stands by its former response regarding site 34SQ326. Until the site is fully delineated and surveyed, we are unable to assess this site. Thus we request that the entire site be avoided until the complete assessment of the site has been completed.

Thank you,

Miss Johnnie Jacobs
Historic Preservation Specialist
Osage Nation Historic Preservation Office
627 Grandview Avenue
Pawhuska, OK 74056

From: Rhonda Fair <RFair@odot.org>
Sent: Monday, June 8, 2020 2:58 PM
To: Johnnie Jacobs <johnnie.jacobs.ctr@osagenation-nsn.gov>
Cc: Scott Sundermeyer <SSundermeyer@odot.org>; Greg Maggard <GMaggard@odot.org>; Nicholas Beale <NBEALE@ODOT.ORG>
Subject: RE: 1920-1368OK-10, ODOT, SH-100: Bridge over the Arkansas River at the Muskogee/Sequoyah County Line, Muskogee and Sequoyah Co.

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Rhonda Fair

From: Rhonda Fair
Sent: Thursday, June 11, 2020 9:12 AM
To: Johnnie Jacobs
Cc: Scott Sundermeyer (SSundermeyer@odot.org); Greg Maggard (GMaggard@odot.org); Nicholas Beale (NBEALE@ODOT.ORG)
Subject: RE: 1920-1368OK-10, ODOT, SH-100: Bridge over the Arkansas River at the Muskogee/Sequoyah County Line, Muskogee and Sequoyah Co.

Good morning Johnnie,

Thank you for your input and consulting with FHWA and ODOT on this project. We feel that we have made a reasonable and good faith effort regarding the identification and assessment of historic properties within the area of potential effect. We stand by our determination that the project, as proposed, will have no effect to historic properties. No additional efforts will be undertaken to delineate the portion of the site outside of the study area; however, that portion of the site will be avoided by off-site activities.

We appreciate your comments.

Best wishes,

Rhonda

From: Johnnie Jacobs <johnnie.jacobs.ctr@osagenation-nsn.gov>
Sent: Tuesday, June 9, 2020 1:57 PM
To: Rhonda Fair <RFair@odot.org>
Subject: [EXTERNAL] RE: 1920-1368OK-10, ODOT, SH-100: Bridge over the Arkansas River at the Muskogee/Sequoyah County Line, Muskogee and Sequoyah Co.

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Thank you,

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627 Grandview Avenue
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OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

April 27, 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 continuing 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 #**	32100(04)	**Anticipated Let Date**	2026
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Sincerely,

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

cc: Tribal Historic Preservation Office

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

August 23, 2021

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

Dear Principal Chief Standing Bear:

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Sincerely,

Rhonda S. Fair

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

cc: Dr. Andrea Hunter, THPO

OKLAHOMA DEPARTMENT OF TRANSPORTATION

Tribal Coordination
200 N.E. 21st Street, Room 3A8
Oklahoma City, OK 73105-3204
www.odot.org

May 24, 2019

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

Dear Mekko Morrow:

Re: Section 106 consultation for proposed Federal-Aid undertaking in Muskogee County, Oklahoma; JP# 32100(04)

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

County	Muskogee	**Job Piece #**	32100(04)	**Anticipated Let Date**	2023
Project description	Bridge replacement and approach improvements on State Highway 100 over the Arkansas River at the Muskogee/Sequoyah County line				
Location	Sec 18 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 405.521.3632 or email at rfair@odot.org.

Sincerely,

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

cc: Janet Maylen, THPO

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

May 1, 2020

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

Dear Mekko Morrow:

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In accordance with 36 CFR Part 800.4, the proposed project area 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 reexamined previously recorded site 34SQ326 and updated the documentation for the site. The current investigation confirmed that 34SQ326 is not eligible for inclusion in the National Register of Historic Places. Gore Cemetery is outside of but adjacent to the project area and is not eligible for inclusion in the NRHP. 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: Galen Cloud, THPO

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

April 27, 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 continuing 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 #**	32100(04)	**Anticipated Let Date**	2026
Project description	Bridge replacement and approach improvements on State Highway 100 over the Arkansas River at the Muskogee/Sequoyah County line				

Information regarding this project was sent to you initially on May 24, 2019. Thereafter, a cultural resources survey was conducted for the area of potential effect, and the cultural resources report was provided to you on May 1, 2020.

Since that time, the study area for the project expanded to include areas not previously surveyed. Please see the enclosed map illustrating those areas. We are conducting studies in the very near future in order to cover these additional areas and will provide you with an additional cultural resources report as soon as it is available.

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

THLOPTHLOCCO TRIBAL TOWN
Federal Charter 1938 – Creek Tribe
P.O. Box 188 ● Okemah, Oklahoma 74859-0188
TRIBAL HISTORIC PRESERVATION OFFICE
Mr.Galen Cloud, Tribal Historic Preservation Officer

April 29, 2021

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

Cell: (405) 517-5670

RE: Bridge replacement and approach improvements on State Highway 100 over the Arkansas River at the Muskogee/Sequoyah County line

Dear Rhonda S. Fair, Ph.D.,

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)d, 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.

Upon review of the documents and consulting our records, we are unaware of any culturally significant sites within the area of potential effects (APE). However, should any human remains or cultural resources be inadvertently discovered, please cease all work and contact our THPO at thpo@tttown.org immediately.

The THPO after reviewing our records and documents agree with the findings within the report and concurs with **No Historic Properties Affected for this undertaking**.

Sincerely,

Mr. Galen Cloud
Director of Cultural Preservation - Tribal Historic Preservation Officer
thpo@tttown.org
Thlopthlocco Tribal Town
P.O. Box 188
Okemah, OK 74859
(918) 560-6122

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

August 23, 2021

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

Dear Mekko Morrow:

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County	Muskogee	**Job Piece #**	32100(04)	**Anticipated Let Date**	2026
Project description	Bridge replacement and approach improvements on State Highway 100 over the Arkansas River at the Muskogee/Sequoyah County line – EXPANDED STUDY AREA				

In accordance with 36 CFR Part 800.4, the proposed project area was surveyed for cultural resources in order to identify historic properties that may be affected by the undertaking. A copy of the supplemental report is enclosed.

In 2020, we submitted the cultural resources report for the above referenced project to you for review. At that time, we determined that the project would have no effect to historic properties. Subsequently, the area of potential effect was expanded in four areas. Additional cultural resources investigations were conducted in these areas, and the results of the study are in keeping with our initial findings. 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

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

cc: Galen Cloud, THPO

OKLAHOMA DEPARTMENT OF TRANSPORTATION

Tribal Coordination
200 N.E. 21st Street, Room 3A8
Oklahoma City, OK 73105-3204
www.odot.org

May 24, 2019

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

Dear Chief Bunch:

Re: Section 106 consultation for proposed Federal-Aid undertaking in Muskogee County, Oklahoma; JP# 32100(04)

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

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Location	Sec 18 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 405.521.3632 or email at rfair@odot.org.

Sincerely,

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

cc: Erin Thompson / Charlotte Wolf

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

May 1, 2020

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

Dear Chief Bunch:

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This investigation reexamined previously recorded site 34SQ326 and updated the documentation for the site. The current investigation confirmed that 34SQ326 is not eligible for inclusion in the National Register of Historic Places. Gore Cemetery is outside of but adjacent to the project area and is not eligible for inclusion in the NRHP. 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

United Keetoowah Band
Of Cherokee Indians in Oklahoma
Office of Historic Preservation
P.O. Box 746 • Tahlequah, OK 74465
4547 S Whitmore Lane • Tahlequah, OK 74464
Phone: (918) 871-2800 • Fax: (918) 414-4038
ukbthpo@ukb-nsn.gov

February 23, 2021

RE: ODOT Job Piece 32100(04) Sh-100 Bridge Over Arkansas River, Muskogee County, Oklahoma

To whom it may concern,

Thank you for consulting with the United Keetoowah Band of Cherokee Indians in Oklahoma (UKB). This response is regarding the request from your office for a review of the project listed above located in Muskogee County, Oklahoma. We have reviewed the information provided in your letter of September 21st, 2020. We find after review of the information we concur with your findings of "no adverse effects".

We remain interested in further communication regarding this project due to the location. The UKB people have a documented historical presence in Muskogee County, Oklahoma. While there are no documented village sites within the project site or within a proximity outside the project site, there is always the potential of finding unknown sites in and surrounding the project location. There is the possibility that unrecorded cultural resources, including archaeological artifact or human remains, may be encountered during construction, demolition, or earthmoving activities of this project. Should this occur, we require that you contact our office immediately so we may offer appropriate comments under 36 CFR 800.13. As the project moves forward, we request the following conditions be followed:

Condition 1: Inadvertent Discoveries - If human remains, burials, funerary items, sacred objects, or objects of cultural patrimony are found during project implementation, the proponent or his/her authorized agent shall cease work immediately within 200 ft of the find. They shall take steps to protect the find from further damage or disruption. They shall contact the Certified Tribal Historic Preservation Officer (CTHPO), Whitney Warrior to report the find. The CTHPO shall contact the appropriate law enforcement authority if human remains are found. No further work shall be allowed on the project until the CTHPO has approved a plan for managing or preserving the remains or items.

Condition 2: Post Review Discoveries - In the event that pre-contact artifacts (i.e., arrowheads, spear points, mortars, pestles, other ground stone tools, knives, scrapers, pottery or flakes from the manufacture of tools, fire pits, culturally modified trees, etc.) or historic period artifacts or features (i.e., fragments of old plates or ceramic vessels, weathered glass, dumps of old cans, cabins, root cellars, etc.) are found during project implementation, the proponent or his/her authorized agent shall cease work immediately within 200 ft of the find. They then shall contact the Certified Tribal Historic Preservation Officer, Whitney Warrior to report the find. No further

United Keetoowah Band
Of Cherokee Indians in Oklahoma
Office of Historic Preservation
P.O. Box 746 • Tahlequah, OK 74465
4547 S Whitmore Lane • Tahlequah, OK 74464
Phone: (918) 871-2800 • Fax: (918) 414-4038
ukbthpo@ukb-nsn.gov

work shall be allowed on the project until the CTHPO has approved a work plan for managing or preserving the artifacts or features.

Condition 3: Activities that have the potential to disturb cultural resources outside the areas specified in the accompanying document(s) are not approved and will not proceed until cultural resources review of potential adverse effects in the new area has been completed.

Please note that due to COVID-19, response times are longer than expected for correspondences. Thank you for your patience during this time. We are diligently working to complete all Section 106 consultations in as timely a manner as possible. If you have any questions or concerns, please feel free to contact our office. These comments are based on information available to us at the time of the project review. We reserve the right to revise our comments as information becomes available. If you have any questions or concerns, please contact our Certified Tribal Historic Preservation Officer/NAGPRA Coordinator, Whitney Warrior at (918) 871-2838 or by email wwarrior@ukbnsn.gov.

Thank you for your consultation,

Whitney Warrior

Whitney Warrior
Director Office of Historic Preservation
United Keetoowah Band of Cherokee
918-871-2838
wwarrior@ukb-nsn.gov

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

April 27, 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 continuing 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 #**	32100(04)	**Anticipated Let Date**	2026
Project description	Bridge replacement and approach improvements on State Highway 100 over the Arkansas River at the Muskogee/Sequoyah County line				

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Since that time, the study area for the project expanded to include areas not previously surveyed. Please see the enclosed map illustrating those areas. We are conducting studies in the very near future in order to cover these additional areas and will provide you with an additional cultural resources report as soon as it is available.

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: Whitney Warrior

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

August 23, 2021

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P.O. Box 746
Tahlequah, OK 74464

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Sincerely,

Rhonda S. Fair

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

cc: Whitney Warrior

OKLAHOMA DEPARTMENT OF TRANSPORTATION

Tribal Coordination
200 N.E. 21st Street, Room 3A8
Oklahoma City, OK 73105-3204
www.odot.org

May 24, 2019

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

Dear President Parton:

Re: Section 106 consultation for proposed Federal-Aid undertaking in Muskogee County, Oklahoma; JP# 32100(04)

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Sincerely,

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

cc: Gary McAdams, THPO

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

May 1, 2020

Wichita & Affiliated Tribes
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P.O. Box 729
Anadarko, OK 73005

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Sincerely,

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

cc: Mary Botone, THPO

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

April 27, 2021

Wichita & Affiliated Tribes
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P.O. Box 729
Anadarko, OK 73005

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Sincerely,

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

cc: Robin Williams, THPO

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

August 23, 2021

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Sincerely,

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

cc: Robin Williams, THPO

OKLAHOMA DEPARTMENT OF TRANSPORTATION
CULTURAL RESOURCES PROGRAM
111 E. Chesapeake, Room 102
Norman 73019-5111
www.odotculturalresources.info

DATE: June 12, 2020

TO: Scott Stegmann, NEPA Project Manager
Leslie Novotny, Environmental Project Manager

FROM: Nicholas Beale, Cultural Resources Program

SUBJECT: Muskogee County Project JP 32100(04): Proposed bridge replacement on SH-100 over the Arkansas River at the Muskogee/Sequoyah County line.

ODOT completed Section 106 consultation on behalf of FHWA for the proposed bridge replacement on SH-100 over the Arkansas River at the Muskogee/Sequoyah County line; 38 acres were surveyed. ODOT determined the proposed project will have no effect on historic properties.

During this investigation previously recorded site 34SQ326 was reinvestigated and documented on a site update form and the Gore Cemetery was documented on Historic Preservation Resource Identification form. Neither of these cultural resources are eligible for listing on the NRHP.

The existing bridge carrying SH-100 the over Arkansas River (ODOT Structure #5159 0300 X; NBI #17611) constructed in 1969 was identified as a type listed in the ACHP Program Comment for post-1945 concrete and steel bridges and was not documented.

Consultation with the State Historic Preservation Office (File #1680-20) and the State Archaeologist (File #FY20-2030) resulted in concurrence with our assessment and determination. Although OAS has concurred, they have stated should the project APE expand beyond the area surveyed or future undertakings occur in adjacent areas, the responsible agency shall ensure that additional investigations are completed to fully delineate 34SQ326 and acquire information to provide a new assessment of the NRHP-eligibility.

ODOT-Cultural Resource Program 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, and Wichita & Affiliated Tribes.

An avoidance memo is included for off-project facilities.

NB

Environmental Programs Division,
Office 405.521.3050 / Fax 405.522.5193

DATE: March 1, 2022

TO: Project Management Division

FROM: Environmental Programs Division

SUBJECT: Muskogee County JP 32100(04): Proposed bridge replacement on SH-100 over the Arkansas River at the Muskogee/Sequoyah County line.

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 7:	SE¼
Section 18:	NE¼ SW¼
	NE¼ SE¼
	SW¼ NW¼
	N½ NW¼ NE¼
T12N R20E	
Section 13:	All

SAS

Oklahoma Historical Society *Founded May 27, 1893*
State Historic Preservation Office
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

May 21, 2020

Mr. Scott Sundermeyer, Director
ODOT Cultural Resources Program
111 East Chesapeake, Rm. 102, OU
Norman, OK 73019

RE: File #1680-20; Arkansas River Bridge Replacement Project on SH-100: JP #32100(04)
(Properties Listed on Attachment)

Dear Mr. Sundermeyer:

We have received and reviewed the documentation submitted on the referenced project in Muskogee & 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 find that there are no known historic properties affected within the referenced project's area of potential effect.

In addition to our review, you must contact the Oklahoma Archeological Survey (OAS), 111 E. Chesapeake, #102, Norman OK 73019-5111 (#405/325-7211, FAX #405/325-7604), to obtain a determination about the presence of prehistoric resources that may be eligible for the National Register of Historic Places. 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 inclusion in the National Register of Historic Places 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 State Historic Preservation Office will be necessary.

Should further correspondence pertaining to this project be necessary, please reference the above underlined file number. Please remember that per regulation, the 30-day review period starts on the day we receive documents in our office, not the date they were mailed. If you have any questions, please contact Catharine M. Wood, Historical Archaeologist, at 405/521-6381. Thank you.

Sincerely,

Lynda Ozan
Deputy State Historic
Preservation Officer

LO:jr

Attachment

FILE #	LIST OF PROPERTIES
1680-20	ARKANSAS RIVER BRIDGE REPLACEMENT PROJECT ON SH-100, MUSKOGEE & SEQUOYAH COUNTIES

1. BRIDGE #5159-0300X ON SH-100 OVER THE ARKANSAS RIVER, SEC18 T12N R21E, MUSKOGEE & SEQUOYAH COUNTIES

2. GORE CEMETERY, SEC7 T12N R21E, GORE VICINITY, SEQUOYAH COUNTY

3. 34SQ326 HISTORIC COMPONENT

Oklahoma Archeological Survey
THE UNIVERSITY OF OKLAHOMA

June 10, 2020

Scott Sundermeyer, Director
ODOT Cultural Resources Program
111 E. Chesapeake, Rm 102
University of Oklahoma
Norman, OK 73019-5111

Re: OAS FY20-2030: FHWA Project JP 32100(04): Proposed Improvements to SH-100 and Bridge Replacement over the Arkansas River
Legal Location: Section 18, T12N, R21E
Muskogee and Sequoyah Counties

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, I understand that CP&Y staff surveyed the 37.38-acre study area from August 5-30, 2019. During the investigation, one prehistoric archaeological site (34SQ326) was revisited within the study area and one historic cemetery was documented adjacent to the study area. Additional historic components were documented at 34SQ326 and the site boundaries were expanded. This multicomponent archaeological site and the cemetery are recommended as not eligible for inclusion in the National Register of Historic Places (NRHP). From the information provided, I understand that ODOT recommends a determination of No Effect to Historic Properties for this undertaking as proposed.

I appreciate that ODOT extended identification efforts outside the project area to try to define the boundaries of site 34SQ326. However, I understand from the information presented that the site extended outside the surveyed area. Nonetheless, the portion of the site that lies within the project area appears to lack integrity due to substantial prior disturbance.

Based on data currently available, I concur with the findings and recommendations as they pertain to the prehistoric component of site 34SQ326 and defer opinion on the NRHP-eligibility for the historic components of the site and overall project effects to the Historical Archaeologist with the State Historic Preservation Office. However, should the project APE expand beyond the area surveyed or future undertakings occur in adjacent areas, the responsible agency shall ensure that additional investigations are completed to fully delineate 34SQ326 and acquire information to provide a new assessment of the NRHP-eligibility.

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

Kary L. Stackelbeck, Ph.D.
State Archaeologist
cc: SHPO

OKLAHOMA DEPARTMENT OF TRANSPORTATION
CULTURAL RESOURCES PROGRAM
111 E. Chesapeake, Room 102
Norman 73019-5111
www.odotculturalresources.info

April 27, 2020

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 County FHWA Project JP 32100(04): Proposed bridge replacement on SH-100 over the Arkansas River at the Muskogee/Sequoyah County line; submittal for comment under Section 106 of the National Historic Preservation Act.

Attached is a cultural resources survey report for the referenced project prepared Raba Kistner and CP&Y. The proposed undertaking includes the replacement of a bridge on SH-100 over the Arkansas River on its existing alignment. The current roadway consists of two 12-foot lanes with two 10-foot inside shoulders; the existing right-of-way is 100 to 140 feet from the centerline of SH-100. The proposed roadway would consist of two 12-foot lanes with two 10-foot inside shoulders and the addition of two 8-foot outside shoulders. The area of potential effect (APE) as defined by 36 CFR 800.16(d) is the NEPA study area, which is described in the report.

During this investigation previously recorded site 34SQ326 was reinvestigated and documented on a site update form and the Gore Cemetery was documented on Historic Preservation Resource Identification (HPRI) form.

Previously recorded site 34SQ326 was originally documented as a possible prehistoric Caddo site due to the identification of one Maud projectile point during a survey for telephone lines in 1989. This site was considered not eligible for inclusion on the NRHP. The current investigation identified the prehistoric component, but also identified two historic-age components and extends the boundaries of the site.

Component 1, the prehistoric component, is represented by a moderate to low density of lithic debitage lacking any formal tools or features. All artifacts were recovered from the plowzone. The reinvestigation of this site extended the boundaries of this site, but the eastern boundary was not identified because it continued well outside of the study area and is beyond the scope of this project. The current investigations confirm the original assessment that the prehistoric component is **not eligible** for inclusion in the National Register of Historic Places (NRHP) pursuant to 36 CFR 60.4.

Component 2 is the remnants of a small residential occupation ca. 1835-1867 represented in only three shovel tests; no features were identified. Artifacts identified in the field include English imports wares of hand painted polychrome, light blue and purple transferwares, blue spongeware, and a kaolin pipe bowl rim sherd. This component is restricted to a small area within the existing right of way, which has also been disturbed due to transportation maintenance and utilities emplacements. These artifacts are interspersed with more modern artifacts from Component 3 and were limited to a plowzone context. Pursuant to 36 CFR 60.4 due to paucity of artifacts, lack of features, and overprinting and mixture of artifacts from Component 3 integrity, Component 2 does not retain integrity necessary to convey significance and is **not eligible** for inclusion on the NRHP.

Component 3 consists of the remnants of a late-nineteenth to mid-twentieth century occupation located on the slopes of a natural levee and now occupied by a mobile home. Component 3 consists of an intermixture of glass, ceramic, and metal artifacts. This component lacks features is extensively disturbed due to modern agricultural

practices. Pursuant to 36 CFR 60.4 due to lack of diagnostic artifacts or features and modern disturbances Component 3 is **not eligible** for inclusion in the NRHP (pursuant to 36 CFR 60.4).

Gore Cemetery is located outside of, but immediately adjacent to the NEPA study area and was therefore documented on an HPRI Cemetery form. The cemetery contains headstones that date to 1875 and has been in continual use through the present. The cemetery is clearly fenced and well-maintained, and the adjacent SH-100 roadway alignment has been consistent in place since at least 1901. There is extremely limited potential for there to be any unmarked graves that would extend into the project area outside of the cemetery fence. It is a common small-town cemetery and is **not eligible** for inclusion in the NRHP.

The existing bridge carrying SH-100 the over Arkansas River (ODOT Structure #5159 0300 X; NBI #17611) constructed in 1969 was identified as a type listed in the ACHP Program Comment for post-1945 concrete and steel bridges and was not documented.

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 me at 325-7201.

Sincerely,

Scott Sundermeyer
Director, ODOT Cultural Resources Program

cc: State Archaeologist

OKLAHOMA DEPARTMENT OF TRANSPORTATION

CULTURAL RESOURCES SURVEY REPORT

Report Title: Reconstruction of State Highway SH-100 and Replacement of Bridge over Arkansas River, J/P 32100(04), Muskogee County, Oklahoma.

Preparer(s): Charles Neel, Andrew Gourd; and Victoria Raines (CP&Y)

Principal Investigator: Dr. Steve Tomka

Date: April 2, 2020

Lead Federal Agency: Federal Highway Administration (FHWA)



County:	Muskogee and Sequoyah
J/P#:	32100(04)
Surveyed by:	Charles D. Neel, Andrew Gourd, and Sarah Oosahwee-Voss
Survey Date:	August 5-7; 11-12; 27-30, 2019
Prime Consultant:	CP&Y

MANAGEMENT SUMMARY:
Raba Kistner Inc. (RKI) conducted a Phase I cultural resources survey for Oklahoma Department of Transportation (ODOT) project J/P 32100(04) consisting of improvements to State Highway SH-100 and the replacement of the bridge over Arkansas River. The National Environmental Policy Act (NEPA) study area begins 2,000 feet (ft) southwest of the bridge and extends 1,500 ft northeast of the bridge for a total distance of 1.02 miles (5,428 ft) and comprises 37.38 acres of new and existing rights of way (ROW).

RKI conducted an intensive survey of shovel testing within the study area on the T-1 terrace, foreslope and backslope, and the natural levee landforms of the Arkansas River. Four shovel tests excavated on the T-0 terrace were also augered to compile a more complete profile of this landform. A portion of archaeological site 34SQ326 recorded by Henry in 1989 is located within existing ROW and was revisited and extensively shovel tested and the boundaries of the site were extended significantly. The site includes two newly discovered historic components. Site 34SQ326 was evaluated under Criterion D of the NRHP. Due to the lack of diagnostic artifacts, tools, or features within the prehistoric component and the intermixture and general lack of diagnostic artifacts and features within the nineteenth and twentieth century components, site 34SQ326 and its three components are recommended **not eligible** for listing to the NRHP.

1. PROJECT DESCRIPTION:

This report documents the results from the cultural resources survey for the proposed SH-100 improvements, J/P 32100(04), Muskogee and Sequoyah Counties.

The proposed project begins approximately 0.5 miles southwest of Gore and 1,500 ft northeast of the Arkansas River bridge. The project continues for 2,000 ft southwest of the bridge for a total project length of 5,428 ft. The existing roadway consists of two 12-feet-wide drive lanes with a 10-feet-wide inside shoulder; the existing right-of-way varies from 100 to 140 feet either side of the centerline of SH-100. The improvements to the roadway will include adding an 8-feet-wide outside asphalt shoulder. The replacement bridge over Arkansas River will be designed for future widening to the south and will be a constant slope rather than the existing crown bridge. Guardrails will be moved back to the beginning of the taper and tied into the new bridge.

The NEPA study area is a long rectangle that narrows at its northern end and follows the curvature of the existing SH-100 roadway. The study area extends 50 ft east for 425 ft south and 150 ft west of the centerline of the SH-100 roadway at the project begin point and expands to 150 ft east and 150 ft west of the center line of SH-100 at the project end point. The NEPA study area comprises 37.38 acres of new and existing right of way (ROW).

Bridges:

One bridge is located within the project study area. The existing bridge over Arkansas River (ODOT Structure #5159 0300 X; NBI #17611) constructed in 1969 was identified as a type listed in the ACHP Program Comment for post-1945 concrete and steel bridges and was not documented.

Legal Location:	T12N R21E Section 18
U.S.G.S. Quadrangle:	Gore, Okla. (1974) Webbers Falls, Okla. (1974)

2. ENVIRONMENTAL SETTING:

Geomorphic/Physiographic Region:

The study area lies in the Arkansas Valley division of the Osage Section of the Central Lowlands physiographic unit as defined by Fenneman (1938:617). The Arkansas Valley division extends as a 37- to 50-mile-wide tapering wedge across central Eastern Oklahoma extending eastward into Arkansas. The division is bounded on the north by the foothills of the Ozark Plateau, on the west by the Prairie Plains, and on the south by the Ouachita Mountains divisions, respectively. The geology is an alteration of gently folded rocks and east-west ridges, dominated by the valleys of the Arkansas and Washita Rivers. The topography of the study area is typified by the Arkansas valley wall and its immediate T-0 and T-1 terraces and a natural levee at the T-1 terrace edge. The NEPA study area extends from a low of 465 ft above mean sea level (amsl) at the Arkansas River to 495 ft amsl at the project begin point, a vertical distance of 30 ft.

Geology and Soils:

The geology of the project area is an alteration of gently folded rocks and east-west ridges, dominated by the valleys of the Arkansas and Washita Rivers. The ancient Arkansas River has cut its valley through the foothills of the Ozark Plateau of the Atoka Formation (Pa) and into the underlying McAlester and Hartshorne Formations of undifferentiated Lower Pennsylvanian interbedded shale, sandstone, and coal beds. The valley (and study area) has filled with Upper Quaternary (Qal) terrace deposits of gravel, sand, silt, and clay (Marcher 1969).

Six major soils units have been mapped within the project study area (CSRL 2019). These are the Kiomatia loamy fine sand (29) of floodplains, the Choska silt loam (8) of stream terraces, and the Roxana very fine sandy loam (60) of stream terraces within Muskogee County. The remaining three soil units are within Sequoyah County and typically mirror the soils of Muskogee County. These are the Oklared silt loam (Ya) of stream terraces, the Garton silt loam (Bw) of floodplains, and the Stigler silt loam (SrC2) of Paleoterraces.

The majority of these soil profiles are described as shallow A horizons from 10 to 15 centimeters (cm) thick over three to four stacked C horizons to 153 to 203 centimeters below surface (cmbs). The Roxanna soil unit profile indicates an Ab horizon from 110 to 132 cmbs. The Garton and Stigler soils are moderately deep with an Ap/BA sequence to 42 cm and an Ap/E/ sequence to 63 cmbs, respectively. The remaining soils have shallow B horizons over Ap horizons (CSRL 2019a to 2019f).

Archaeological sites and artifacts within this environment should be found on the surface or within the shallow to moderately deep Ap/A/BA/ or E horizons or within the deep Ab horizon of the Roxana soil unit. No bank exposures were available for profiling.

Vegetation:

The overstory vegetation within the study area consisted primarily of hackberry, juniper, persimmon, and cottonwood within wooded tracks along the valley wall and edge of the T-1 terrace and natural levee. The understory vegetation consisted of the mown SH-100 ROW, invasive Johnsongrass, ironweed, beggerticks (Bidens L.), sumac, and river cane and greenbriar thickets. The vast majority of the T-0 terrace was covered with mounds or layers of sand deposits of 50 to 100 cm thick from a recent flood. The T-1 terrace was planted in corn and soybeans.

Surface Visibility:

XXX	0-25%	woodland, grassland, house lawns, ROW
	25-50%	
XXX	50-75%	row crops
	75-100%	

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3. CULTURAL BACKGROUND:

Background Research:

__XXX__ State Site Files at Oklahoma Archeological Survey (OAS)

__XXX__ SHPO NRHP and DOE, and OLI Files

There is one previously recorded archaeological site within the NEPA study area, 34SQ326. There are two previously recorded archaeological sites (34SQ46 and 34MS70) and seven previous archaeological surveys within one mile of the NEPA study area. A search was conducted of the National Register of Historic Places (NRHP) and Determinations of Eligibility (DOE) listings, and there are no NRHP properties or Districts or DOE listings located within the NEPA study area or within 1 mile of the study area. A review of the Oklahoma Landmarks Inventory (OLI) indicates there are no recorded OLI structures located within the NEPA study area.

Resources of the Built Environment:

Historic aerial imagery and topographic maps indicate that there are no buildings within the NEPA study area, nor have there been in past years. Gore Cemetery is located outside of but immediately adjacent to the study area, in the northeast portion of the study area. The cemetery has headstones dating to 1875 and has continually operated as a cemetery through the present.

Previously Recorded Archaeological Sites:

Site 34SQ326 was recorded in 1989 by Henry for an AT&T cable route survey. The site consists of three small concentrations of prehistoric debitage, the largest of the three concentrations extending into the project study area near the project begin point. The concentrations of lithic debris were labeled "east, "west' and "south" by Henry and this terminology is retained in this report. The two small concentrations 'east' (23 x 15 m); and 'west' (43 x 26 m), were revisited by Henry and tested in 1990 by the placement of a single 1 by 2 meter (m) unit within each concentration (Units 1 and 2). The 'south' concentration (50 x 96 m) was not tested.

Artifacts documented on the original site form are a Maud point from the south concentration and three debitage with no provenience although the report states that 'numerous artifacts' were noted on the surface in the west concentration during the 1990 testing. The site was attributed as a possible Caddoan occupation of ca. 800 to 1,600 A.D. based on the recovery of the Maud point. The test units, excavated to 80 cm, indicate that the site is confined to the plow zone of 20-25 cm. One flake and three 'burned sandstone' were documented in the east concentration in Unit 1 to 25 cm and two flakes and a large iron metal ring similar to a saddle cinch ring were documented in the west concentration in Unit 2 to 20 cm. Although the 'south concentration' was not tested by Henry, the site was assessed as **not eligible** for listing to the NRHP.

Site 34SQ46 is a large open camp located on the T-1 terrace approximately 3,600 ft southeast of the project begin point. The site was recorded in 1971 by Harvey King, a collector, who reported 'broken cultivating tools, projectile points of mostly Gary points, numerous debitage, and a Morris point.' The site was **not assessed** for inclusion to the

NRHP.

Site 34MS70 is located approximately 4,000 ft northwest of the project end point on the T-I terrace of the Arkansas River and is bisected by a county road. The site was reported by Harvey King, a collector, in 1971 and he revisited the site until at least 1974. The site form contains outline drawings of 190 dart points dominated by Gary, eight arrow points, a ground stone celt, two chipped stone axes or hoes, hammerstones, and two fragments of hematite boatstones. In 1978, Richard Drass of the Oklahoma Archeology Survey (OAS) reported a mano and siltstone fragment from the site although no Update Form is included in OAS records. The site was again recorded by Dickson, another collector, in 1980 who reported 'Gary-like bifaces, a Scallorn arrowpoint, and many shell tempered sherds'. He also reported 'previous excavations' in 1961-1962 but does not describe them. The site is listed as the Pierson #2 Site, a large hamlet or village, and was **not assessed** for inclusion to the NRHP but was recommended for testing in Wyckoff and Brooks (1983:140).

Previous Archaeological Surveys:

In 1989-1990 Henry completed a survey for an AT&T cable route that crosses the project study area. Site 34SQ326, consisting of three prehistoric debitage concentrations, was recorded during that survey. A portion of the site is located within the project study area. The site was assessed as **not eligible** for listing to the NRHP at that time although the 'south' of the three lithic concentrations recorded was not tested.

In 1990, Garcia completed a survey for the Town of Webbers Falls boat ramp expansion 1,840 ft southeast of the NEPA study area end point. No sites were recorded during the survey.

In 1995, Bartlett completed a survey for ODOT STP 602(238) within the town of Gore, 4,900 ft northeast of the NEPA study area begin point. No sites were recorded during the survey.

In 2002, Ford completed a survey for an unknown project within the town of Gore 5,040 ft northeast of the NEPA study area begin point. No sites were recorded during the survey.

In 2005, an unknown person completed a survey for the American Tower Corporation, Gore Tower within the town of Gore located 2,560 ft northeast of the NEPA study area begin point. No sites were recorded during the survey.

In 2006, Henry completed a survey for the Gore Sewer Plant outfall line 2,400 ft north of the NEPA study area begin point. No sites were recorded during the survey.

In 2010, Miller completed a cell tower survey within the outskirts of the town of Gore 4,960 ft northeast of the NEPA study area begin point. No sites were recorded during the survey.

Prehistoric sites in the general region of the project, as recorded on the Gore and Webbers Falls, Okla. quadrangles, are typically located on T-I terrace edges of the Arkansas and

Illinois rivers and Taylor Creek to the northwest. This landform type is located within the study area.

Muskogee County is one of 11 counties that comprise Region 3, the Tall Grass Prairies and Oak-Hickory Forests Region of northeastern Oklahoma. The region is dominated by two biotic and geomorphic districts: The Cherokee Prairies and the timbered Ozark Uplift. As of 2005, 407 sites have been recorded for Muskogee County (Brooks 2005). Of these 407 sites, 376 sites have been identified for temporal placement: Paleo-Indian (4), Archaic Period (59), Woodland Period (23), Village Farming Period (63) and Historic Period (227). Archaic Period sites for Region 3 are generally known from surface and stratified sites in Delaware, Nowata, and Mayes counties investigated during large reservoir salvage projects. Woodland Period sites for Region 3 are generally known from open camps located along the Grand River and its tributaries and from rockshelters located along the Grand and Illinois River drainages. Village Farming Period sites are known from mound settlements along the Arkansas River and the lower courses of the Grand and Illinois rivers (Wyckoff and Brooks 1988:45-55). Historic Period sites generally are represented by Removal Period, Territorial Period, and Statehood Period farmsteads located on upland ridges and ridge toes, or along early wagon and vehicular roadways.

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4. METHODOLOGY:

Field Investigation Methodology: (must outline STP interval used in the project area and on sites)

Field investigations consisted of approximately 75 percent intensive shovel testing along one transect line on both sides of the SH-100 roadway located 30 m from the roadway centerline. The remaining 25 percent of the study area (the southeast quadrant) was subject to pedestrian survey only as 90 percent of this area was restricted to the sloping road berm and 10 percent to fenced yards of houses (Figure 2). Shovel tests were excavated on 30 m intervals on transects in the remaining 3 quadrants.

Shovel tests measured minimally 32 cm square (1/10 of a sq m), and were excavated in 20 cm and/or natural levels if artifacts were encountered. Excavated soil was screened through ¼-inch hardware cloth. Soil profile descriptions of horizon, color, texture, and inclusions were documented on shovel test forms. UTM locations of all shovel tests were documented utilizing a Garmin Montana 550t or 650t units with error of ±2 to 3 m and recorded on North American Datum 83 (NAD83). The NEPA study area was documented with representative photographs. Photographs were also taken of all artifacts recovered by individual level within each positive shovel test.

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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.

__XXX__ 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:

Archeological Resources:
Henry's (1990) 'south' portion of site 34SQ326 that extended into the study area was revisited and intensely shovel tested. No other archaeological resources were identified. One resource of the built environment was documented, the Gore Cemetery.

34SQ326:

Prehistoric site 34SQ326 was recorded by Henry in 1989 as three small distinct low density concentrations of lithic debris labeled 'east', 'west', and 'south.' The 'south' and largest of the three lithic concentrations was attributed to a 'possible Caddoan occupation of ca. 800 to 1600 A.D.' due to the single Maud point observed here. The site is located on the north side T-1 terrace of the Arkansas River. The 'south' concentration recorded by Henry was partially within the study area of this project and was subjected to a 15 and 30 m cruciform shovel test grid on 6-7; 11-13; and 27-30 August 2019. The 'burned sandstone' documented by Henry is suspect as many shovel tests completed by this investigation contained small sandstone cobbles with rounded edges and red and/or black shading indicative of burning. However, the sharp jagged breaks indicative of most fire cracked rock (FCR) were not present. These color shading, while reminiscent of FCR, are attributed to iron and manganese concentrations, respectively, and are not believed to be FCR.

The portion of the site delineated during this investigation covers an area of 420 m N-S by 330 m E-W (138,600 sq m or 34.25 acres). A total of 109 shovel tests were excavated on two 15 and 30 m cruciform grids and positive and negative shovel tests combined with the observation of early to mid-twentieth century and prehistoric artifacts on the surface was utilized to define site boundaries, component boundaries, and document artifact types represented. The eastern boundary of the site was not determined as shovel testing was suspended at 210 m beyond the study area boundary. Two cruciform site grids were established to delineate the site, the North Grid (north of Cawhorn Road), and the South Grid, (south of Cawhorn Road). The initial site grid (North Grid) was established at the location of Henry's (1990) 'south' concentration of prehistoric materials located within the current SH-100 right of way (ROW). The North Grid base line was oriented to 35 degrees east of magnetic north in order to be parallel with the roadway (and study area). A second

site grid (South Grid) was established at 90 m south of the North Grid datum to remain parallel and accommodate a turn in the roadway. The South Grid base line was oriented at 45 degrees east of magnetic north, hence the two grids were offset by 10 degrees. The two grids were expanded by the excavation of positive shovel tests and eventually overlapped, indicating one large site area. The study area was investigated by 2 to 3 persons over a period of 9 days between August 5 and August 30, 2019.

The testing of the 'south' lithic concentration resulted in the identification of three components to the site. Component 1 represents the prehistoric component identified by Henry (1990) and artifacts were documented in 48 shovel tests and on the surface; Component 2 is a Removal Period Cherokee homestead of ca, 1835-1867 documented from 3 shovel tests. Component 3 is an artifact scatter of intermixed late nineteenth through mid-twentieth century occupations (ca. 1898-1974) documented from 26 shovel tests and from the surface of the plowed field to the north. All component boundaries were documented by positive and negative shovel tests and artifacts observed on the ground surface in areas of visibility. However, the eastern boundary of Component 1 was not determined, as shovel testing of the site was halted at 210 m beyond the study area boundary.

Vegetation of the site consisted of woodland on the levee and slopes with a dense understory thicket south of Cawhorn Road (aka Sandplant Road), beyond the mobile home yard, and 7 ft tall corn on the north side of Cawhorn Road, which considerably slowed the delineation effort. Approximately 10 percent of site 34SQ326 lays within the NEPA study area. The landforms of 34SQ326 include the flat and plowed T-1 terrace investigated by Henry located north of Cawhorn Road containing his ‘east’, ‘west’ and ‘south’ artifact concentrations. This investigation continued to the south side of Cawhorn Road and included the foreslope and backslope of a natural levee, the levee itself, and the T-0 terrace below.

A shovel test grid was established at 15 and 30 m intervals parallel with the ROW until double negative shovel tests were encountered. This ROW base line of shovel tests extended for 390 m and was then delineated to the east and west. Due to the curvature of the roadway, two east-west base line grids were established. The North Grid was oriented to 35 degrees east of magnetic north on the north side of Cawhorn Road. The South Grid was oriented to 45 degrees east of magnetic north on the south side of Cawhorn Road; the 0/0 grid centers being located 90 m apart. East and west transects were oriented perpendicular to the base lines. Positive shovel tests extended 270 m north-south along the ROW baseline and 270 m east across the T-1 terrace before shovel testing was suspended therefor the eastern boundary of the prehistoric Component 1 was not encountered. A datum was established for each grid as 0/0 and corresponds to Waypoint 919 (WP919) for the North Grid and WP931 for the South Grid. The two grids were offset by 10 degrees east due to the curvature of the roadway. The site occupies the foreslope and backslope of the natural levee, the natural levee itself and extends an unknown distance east across the T-1 terrace.

The entire site area extends across the flat T-1 terrace of the Arkansas River at approximately 480 ft above mean sea level (AMSL) to 490 to 495 ft amsl at the top of the natural levee. The foreslope of the levee has a gentle rise of 20 to 30 degrees while the

backslope nearest the river descends at an almost 45- to 50-degree slope. An old cut off narrow water-filled flood channel of the river is located at the bottom of the backslope and has been cut into the narrow T-0 terrace. The western boundary of the site extends to the base of the existing road berm, a distance of 65 to 75 ft east of the centerline of the SH-100 roadway within existing ROW. Site 34SQ326 as delineated herein, is defined as containing three components: approximately 10 percent of the site is located within the study area and includes 10 percent of Component 1, 100 percent of Component 2, and 30 percent of Component 3.

Component 1:

Description:
As the 'south' portion only of site 34SQ326 extended into the study area, this was the only portion of the site that was shovel tested. The ‘east’ and ‘west’ lithic concentrations were located well beyond the study area boundary and therefore not tested during this investigation. The site was attributed to 'possible Caddoan' based on a Maud point collected by Henry. Although this Caddoan occupation attributed by Henry may be correct at this location, the large size of the site indicates this is likely a series of unknown age overlapping lithic reduction camps.

Artifacts:
Component 1 is the prehistoric component of lithic debitage that extends within and beyond the ‘south’ concentration of Henry (1990) and encompasses Components 2 and 3. Cultural material documented from Component 1 are 28 flake fragments, 36 tertiary flakes, 34 secondary flakes, 33 shatter, 4 biface thinning flakes, 22 pressure flakes, 1 small ovate biface with two spokeshave scraper edges, 1 core fragment, 1 tested cobble, 1 pebble core, and 5 bison bone from 48 positive shovel tests and nine observed on the ground surface (n=166). Artifact lithic material is represented by various colors of gray, mottled gray, white, brown and yellowish brown chert from stream rolled cobbles. Five bison bone fragments were also documented in one shovel test.

The Maud point collected by Henry and the ovate bifacial spokeshave scraper recovered during this investigation are the only tools documented. Depth of artifacts ranged from being exposed on the surface of the plowed soybean field to 80 cmbs near the top of the natural levee. Due to the large size of the site (34 acres) and very low artifact density, Component 1 is interpreted as a set of small unknown period prehistoric overlapping occupations where the sharpening and or re-sharpening of prepared bifaces and preforms was the primary site activity. These artifacts were likely brought to the site as prepared preforms and further thinned or made into dart or arrowpoints as no primary flakes were documented. No tools (other than a single spokeshave scraper) representing other activities were documented and no features were encountered during shovel testing. Component 1 is confirmed as being recommended **not eligible** for listing to the NRHP by Henry in 1989, however, the eastern boundary of the site was not determined during this investigation. The western boundary of the site is located 57 feet east of the SH-100 roadway centerline at the base of the road berm slope and may have extended under the present roadway, however all

shovel tests on the western side of the roadway were negative for artifacts. Approximately 10 percent of Component 1 is located within the NEPA study area including the current ROW.

Soils:
Component 1 soils were quite variable as the site extends across four landforms: the T-1 terrace, the foreslope and backslope of the natural levee, and the natural levee itself. The T-1 terrace soils will only be discussed here as the soils of the remaining landforms are included in other component descriptions. This soil description is compiled for the area of Component 1 within the corn and soybean fields as the ROW soils show some disturbance from road and utility construction. The T-1 terrace soils are of the Garton series, a soil formed in loamy and clayey sediments of low terraces. This soil was quite homogenous and consisted of typically two to three soil units of a shallow Ap/BA/Bt1 or an Ap/Bt1 sequence, the BA horizon being incorporated into the plowzone. Soil Zone I, the Ap horizon, was typically a brown silty clay loam (7.5YR5/3) from 19 to 30 cm thick or a dark brown (10YR3/3) clayey loam to 35 cmbs. Soil Zone 2 consisted of the unplowed portion of the A horizon which occurred in spotty locations of the plowed field. Zone 2 consisted of a very dark grayish brown clayey loam (7.5YR3/2) to 70 cmbs in one instance. Zone 3, consisted of the Bt1 horizon and was typically immediately underlying the plowzone. The Bt1 horizon soil was typically a 10YR4/2 dark grayish brown clayey loam below 19 to 35 cmbs. All prehistoric debitage was recovered from the Ap soil unit within the plowed field to 35 cmbs. Some prehistoric debitage was recovered to 47 cmbs within the ROW portion of the site and is attributed to reworking of the ROW soils during construction of the roadway and utilities.

Component 2:

Description:
Component 2 is a mid-nineteenth century (ca.1835-1867) occupation located within the ROW south of Cawhorn Road on the foreslope of the natural levee and identified in 3 shovel tests. This date range of ca. 1835 to 1867 is based on an extensive review of English transferprint wares by color of production dates by Samford (2000:75). In his review, he places production of purple transfer wares at 1814-1867 and light blue transfer wares at 1818-1867, however it is unlikely the site was occupied before 1835 at which time the New Echota Treaty was signed which ceded Cherokee land in the east to the US government, which began their removal to Indian Territory. The positive shovel tests of this component are located at the base of and 15 m east of the current road berm and the major portion of this component is believed to lay under the existing SH-100 roadbed. The component occupies an area of approximately 26 m NW-SE by 15 m NE-SW (390 sq m) at 485 ft amsl. Component 2, due to its limited artifact content, overlap and mixture with artifacts from Component 3, lack of features, and disturbance by previous construction, is recommended **not eligible** for listing to the NRHP. The western edge of the component is located approximately 80 feet east of the centerline of SH-100 at the base of the road berm. The entire Component 2 is located within current ODOT ROW.

Artifacts:
Due to intermixture with artifacts of Component 3, cultural material that can be directly documented from Component 2 consists of a minimum of 11 artifacts from three shovel tests (n=11). These artifacts are two patterns of hand painted floral design polychrome cups: one body sherd and two rim sherds with black band and two rim sherds with red band, a purple transferware sherd, a light blue transferware sherd with fern pattern, a blue spongeware sherd, a gray paste salt glaze sherd with incised lines, a heavily patinated green glass shard, and a bowl rim sherd of a kaolin pipe. Two deer incisors and four shards of lamp chimney glass may possibly relate to this component but have been included in counts for Component 3. No features were identified during shovel testing.

Soils:
Soils from the positive shovel tests indicate a brown sandy loam to a very dark gray loam Zone I soil of 20 to 30 cm thick. Zone II soil consisted of a dark brown compact sand to 40 cmbs in one unit. Zone III consisted of a dark yellowish brown compact clay below 40 cmbs. All artifacts attributed to this component were recovered from the upper 20 cm of the three shovel tests.

Component 3:

Description:
Component 3 is attributed to a large late nineteenth to mid-twentieth century artifact scatter attributed to five structures depicted on historic imagery from 1898 to 1974. These are a ca. 1898-1950 structure (GLO 1898; USGS 1901, 1948, and 1950) then located at the approximate center of the existing SH-100 roadway; a residential structure located east of the above structure as depicted on historic imagery from 1948 to 1974 (HistoricAerials 1950, 1966, 1973, 1974; OSHD 1963; USGS 1948, 1950) now occupied by a mobile home; a cluster of three residential structures depicted on historic imagery from 1948 to 1974 and located north of Cawhorn Road within a corn field, and an early twentieth century residential structure located at the northeast corner of Cawhorn Road (based on an artifact scatter here) but not depicted on any historic imagery. Artifacts of Component 3 were documented from 26 shovel tests and on the surface. The western boundary of the site is located 58 feet east of the SH-100 roadway centerline at the base of the road berm slope. Component 3, due to its limited diagnostic artifact content, overlap and mixture with artifacts from at least five structures, lack of features, and disturbance by plowing is recommended **not eligible** for listing to the NRHP.

Artifacts:
Cultural material documented from Component 3 consists of 123 artifacts from 23 shovel tests and 6 from the surface (n=127). These are bottle and jar glass sherds of 48 colorless, 1 dark green, 1 pale green, 1 green bottle finish, 3 brown, 2 of amber, 4 colorless lamp chimney, 1 canning jar body shard with molded "RTO", 1 purple, 1 opaque white jar fragment with Greek key design around the rim, 1 Applied Color Label (ACL) green soda bottle, and 3 window glass. Metal artifacts are 15 wire nails, 3 cut nails, 1 wire, 1 barbed wire, 1 tack, 1 fence staple, 1 pot metal clamp, 1 .32 caliber brass shell casing, 1 electric

switch, and 1 wrench. Ceramic sherds are 19 undecorated whiteware, 1 whiteware with molded rim, and 1 porcelain rim sherd. Miscellaneous artifacts are 1 asbestos siding, 10 coal lumps, and 2 deer incisors. No features were identified during shovel testing.

Soils:
Soils from the three positive shovel tests where the cut nails, purple glass shard, and snuff bottle shards were recovered was utilized for this description. Zone I soil consists of a 30 to 40 cm thick very dark gray loam in two of the positive shovel tests. The third positive test containing the purple glass shard was comprised of three soil zones, the shard recovered from Zone II at 20-30 cmbs. Zone II soil consisted of a dark brown loam and contained whiteware, a large wire spike, colorless glass, and pale green window glass attributed to Component 3. All artifacts were recovered from the upper 20 to 30 cm of these three shovel tests.

Soil data for the location of the structure now occupied by a mobile home was compiled from six shovel test units containing wire nails. All wire nails were recovered from soil Zones I and II within the upper 35 cm of the soil profile. Zone I soil is a variable 12 to 35 cm thick dark brown to brown to dark gray silty to clayey loam. Zone II is a variable soil from 12 to 35 cmbs of a dark brown to brown to yellowish brown silt to silty loam. Soil data from the of the cluster of three mid-twentieth century residential structures originally located north of Cawhorn Road matches soil data from Component 1.

Soil data for the location of the occupation at the corner of Cawhorn Road was documented from shovel tests in this general area, primarily from the ROW. All artifacts were recovered from soil Zones I and II within the upper 35 cm of the soil profile. Soil Zone I is a variable yellowish brown to brown silty loam or sand to 15 to 31 cmbs. Zone II is a variable light brown to yellowish brown silty loam to silt with maximum depth of 47 cmbs within the disturbed ROW.

Auger Testing:

Auger testing was restricted to six shovel tests. Shovel test AG-01, the only shovel test excavated in the Roxana soil unit in the southeast quadrant transect, was excavated to 76 cm and augered to 115 cm to examine an Ab horizon indicated at 132 cmbs in CSRL data (2019c). However, the actual profile of this unit indicated an Ap/C1/Ab soil sequence with the Ab horizon encountered at 76 cmbs. The unit was augered to 115 cmbs and terminated due to the extremely compact Ab clay horizon. Four shovel tests were augered on the T-0 terrace, two on the South Grid baseline and two on the E30 m line and were negative for artifacts or buried soils.

Shovel test S90E90 on the South Grid was excavated to 90 cmbs with bison bone encountered from 0-20 cm and 60-90 cm and was augered to 150 cmbs and terminated due to compact clay encountered at 90 cmbs. This shovel test occurred in the Oklared soil unit indicated as containing a soil sequence of a thin Ap horizon over stacked C horizons to 203 cmbs in CSRL data (2019d). However, the actual profile of this unit indicated an Ap/A/Ab (or Ap/A2/A3?) soil sequence. The auger was terminated at 150 cmbs due to the extremely

compact lower clay horizon below 90 cm. No additional bone fragments or artifacts were noted during the auger testing. This unit profile was quite anomalous to the overall soil sequence for the site, likely because it was excavated at the top of the natural levee landform.

Resources of the Built Environment:

Gore Cemetery

This is small community cemetery established in 1888, based on the earliest burial noted there and the timeline of development in the area. It was 1888 that the town received its postal designation for Campbell Store (the townsite was originally known as Campbell or Illinois Station). It was not until 1909 that the townsite's name was changed to Gore, in honor of US Senator Thomas P. Gore; it is most likely that the cemetery was also renamed to its current title at that time. There is an "old" Campbell Cemetery indicated in local literature that was established during the early 1800s when the townsite was being formed, which houses those interred prior to 1888. The old cemetery is located on private land outside of the study area and is not accessible.

Cemeteries, as a rule, are not NRHP-eligible. The ubiquitous metal arched gate is similar to most every other community cemetery in the area and throughout the state, so the design would not rise to the level of significance necessary for NRHP eligibility under Criterion C. Dr. WW Campbell, a descendent of one of the earliest Gore area settlers, Walter Webber (for whom Webbers Falls is named), is interred in the cemetery, but generally for a cemetery to be NRHP eligible based on its association with a transcendent person, the significance of the person must be far greater; additionally, sites that are associated with the person during their lifetime (in fact, during their significant years), would be favorable. This association with an early resident does not rise to the level of NRHP eligibility under Criterion B. No known significant historic events occurred at the cemetery, and therefore it is considered not eligible under Criterion A.

For future construction along the SH-100 roadway, the Gore Cemetery boundaries are very cleared indicated with fencing a large gate signaling the cemetery. The closest headstone from the exterior fence inside the cemetery is approximately 5 ft., and between the exterior fence and the SH-100 roadway is approximately 70 ft. of maintained, somewhat disturbed (overhead utility corridor) ROW. Though the old and newer headstones are somewhat intermixed inside the cemetery, the oldest ones are generally clustered in the center. Additionally, though the roadway adjacent to the cemetery has not always been designated as SH-100, it has historically followed the same alignment as it does today. Indeed, according to a 1901 Muskogee 30' series topographic map, the roadway follows the same alignment it does today. Therefore, the likelihood of unmarked graves outside of the cemetery fence and inside the ODOT ROW is extremely low.

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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:

One archaeological site, 34SQ326, was revisited and extensively shovel tested. One cemetery was documented.

Archaeological Site:

34SQ326 is a multi-component prehistoric site that encompasses two historic components: Component 1, the prehistoric component, is represented by a moderate to low density of lithic debitage with only two tools, a Maud point collected in 1990 by Henry and an ovate bifacial scraper documented during this testing. Component 1 is interpreted as a series of overlapping short term lithic reduction camps with probable large temporal depth due to the large site size (34 acres) and general lack of tools, projectile points, or features. The camps are of unknown temporal association although a Caddoan occupation at one location can be verified from a documented Maud point. Component 1 is recommended **not eligible** for inclusion in the NRHP (pursuant to 36 CFR 60.4), although the eastern boundary was not documented. Based on this evaluation, the proposed undertaking would have no effect on any characteristics of the site that would qualify it for listing to the NRHP.

Component 2 is a Cherokee Removal Period residential occupation of ca. 1835-1867 documented in only three shovel tests. Artifacts represented are English imports wares of hand painted polychrome, light blue and purple transferwares, blue spongeware, and a kaolin pipe bowl rim sherd. A gray saltglaze stoneware sherd was likely regionally produced and imported through Fort Smith or Fort Gibson. Component 2 is restricted to a small area of ROW and likely extends under the current road berm of SH-100. Component 2 is recommended **not eligible** for inclusion in the NRHP (pursuant to 36 CFR 60.4) due to the small quantity of artifacts documented, lack of features, and intermixture of artifacts with Component 3. Based on this evaluation, the proposed undertaking would have no effect on any characteristics of the site that would qualify it for listing to the NRHP.

Component 3 consists of multiple late-nineteenth to mid-twentieth century occupations of ca. 1898-1950; a mid-century occupation of ca. 1948-1974 located on the slopes of a natural levee and now occupied by a mobile home; a cluster of three mid-twentieth century residential structures within the plowed field; and one ca. 1930s to mid-twentieth century residential structure not indicated on historic imagery. Component 3 consists of an

intermixture of glass, ceramic, and metal artifacts, probably combined with some road trash glasswares in shovel tests excavated within the ROW. The mostly non-diagnostic and intermixed artifacts from these occupations and lack of features limit the research potential of this component. The late-nineteenth to mid-twentieth century Component 3 is extensively disturbed and also intermixed with Component 2 artifacts or has been plowed and does not possess significant information on the history of Sequoyah County or Oklahoma in addition to that collected during this investigation. Component 3 is recommended **not eligible** for inclusion in the NRHP (pursuant to 36 CFR 60.4).

Cemetery:
Gore Cemetery is located outside of but immediately adjacent to the NEPA study area and was therefore documented with an HPRI Cemetery form. The cemetery contains headstones that date to 1875 and has been in continual use from at least that time through the present. It is a common small-town cemetery and is considered **not eligible** for inclusion in the NRHP. The cemetery is clearly fenced and well-maintained, and the adjacent SH-100 roadway alignment has been consistent historically (since at least 1901). There is extremely limited potential for there to be any unmarked graves that would extend into the project area, outside of the cemetery fence.

Bridges:
The existing bridge over Arkansas River (ODOT Structure #5159 0300 X; NBI #17611) constructed in 1969 was identified as a type listed in the ACHP Program Comment for post-1945 concrete and steel bridges and was not documented.

Pursuant to 36 CFR 800.4, it is our opinion that no historic properties **within the study area** will be affected and the proposed project is recommended to proceed as planned. In the event that subsurface archaeological materials are exposed during construction activities the ODOT-CRP staff and other appropriate agencies must be notified.

In order to avoid non-NRHP assessed cultural resources in the project vicinity by off-project activities the following areas are recommended to be avoided for all off-project facilities:

T12N R21E
Section 13:
NE ¼ NE ¼ NW ¼

Section 18:
NE ¼ SE ¼
N ½ NW ¼ NE ¼

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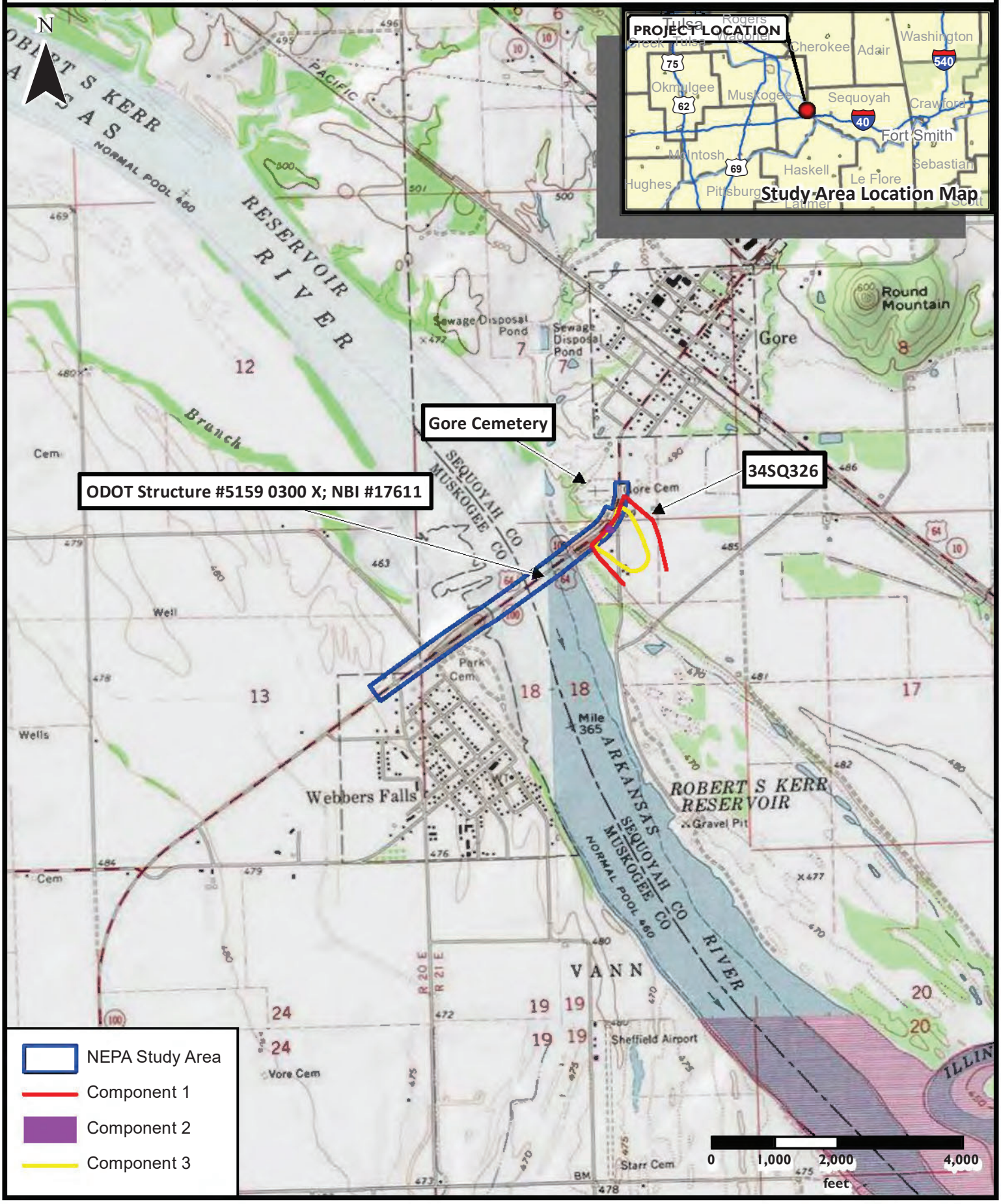
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Figure 1. Cultural resources within the NEPA study area of J/P 32100(04), Muskogee County, Oklahoma.

Source: Gore, OK (1974), Webbers Falls, OK (1974), Holt Mountain, OK (1963), and Stigler NE, OK (1963)



OKLAHOMA DEPARTMENT OF TRANSPORTATION

Tribal Coordination
200 N.E. 21st Street, Room 3A8
Oklahoma City, OK 73105-3204
www.odot.org

May 24, 2019

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

Dear Chief Harjo:

Re: Section 106 consultation for proposed Federal-Aid undertaking in Muskogee County, Oklahoma; JP# 32100(04)

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

County	Muskogee	**Job Piece #**	32100(04)	**Anticipated Let Date**	2023
Project description	Bridge replacement and approach improvements on State Highway 100 over the Arkansas River at the Muskogee/Sequoyah County line				
Location	Sec 18 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 405.521.3632 or email at rfair@odot.org.

Sincerely,

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

cc: Janice Lowe

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

May 1, 2020

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

Dear Chief Harjo:

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 #**	32100(04)	**Anticipated Let Date**	2023
Project description	Bridge replacement and approach improvements on State Highway 100 over the Arkansas River at the Muskogee/Sequoyah County line				

In accordance with 36 CFR Part 800.4, the proposed project area 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 reexamined previously recorded site 34SQ326 and updated the documentation for the site. The current investigation confirmed that 34SQ326 is not eligible for inclusion in the National Register of Historic Places. Gore Cemetery is outside of but adjacent to the project area and is not eligible for inclusion in the NRHP. 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: Janice Lowe

OKLAHOMA DEPARTMENT OF TRANSPORTATION

Tribal Coordination
200 N.E. 21st Street, Room 3A8
Oklahoma City, OK 73105-3204
www.odot.org

May 24, 2019

Caddo Nation
Attn: Chairman Tamara Francis
P.O. Box 487
Binger, OK 73009

Dear Chairman Francis:

Re: Section 106 consultation for proposed Federal-Aid undertaking in Muskogee County, Oklahoma; JP# 32100(04)

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

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Sincerely,

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

cc: Tribal Historic Preservation Office

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

May 1, 2020

Caddo Nation
Attn: Chairman Tamara Francis
P.O. Box 487
Binger, OK 73009

Dear Chairman Francis:

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.

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In accordance with 36 CFR Part 800.4, the proposed project area 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 reexamined previously recorded site 34SQ326 and updated the documentation for the site. The current investigation confirmed that 34SQ326 is not eligible for inclusion in the National Register of Historic Places. Gore Cemetery is outside of but adjacent to the project area and is not eligible for inclusion in the NRHP. 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: Tribal Historic Preservation Office

OKLAHOMA DEPARTMENT OF TRANSPORTATION

Tribal Coordination
200 N.E. 21st Street, Room 3A8
Oklahoma City, OK 73105-3204
www.odot.org

May 24, 2019

Cherokee Nation
Attn: Principal Chief Bill John Baker
P.O. Box 948
Tahlequah, OK 74465

Dear Principal Chief Baker:

Re: Section 106 consultation for proposed Federal-Aid undertaking in Muskogee County, Oklahoma; JP# 32100(04)

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

County	Muskogee	**Job Piece #**	32100(04)	**Anticipated Let Date**	2023
Project description	Bridge replacement and approach improvements on State Highway 100 over the Arkansas River at the Muskogee/Sequoyah County line				
Location	Sec 18 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 405.521.3632 or email at rfair@odot.org.

Sincerely,

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

cc: Elizabeth Toombs, THPO

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

May 1, 2020

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	**Job Piece #**	32100(04)	**Anticipated Let Date**	2023
Project description	Bridge replacement and approach improvements on State Highway 100 over the Arkansas River at the Muskogee/Sequoyah County line				

In accordance with 36 CFR Part 800.4, the proposed project area 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 reexamined previously recorded site 34SQ326 and updated the documentation for the site. The current investigation confirmed that 34SQ326 is not eligible for inclusion in the National Register of Historic Places. Gore Cemetery is outside of but adjacent to the project area and is not eligible for inclusion in the NRHP. 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

GWYƆ DƁP
CHEROKEE NATION®
P.O. Box 948 • Tahlequah, OK 74465-0948
918-453-5000 • www.cherokee.org

Office of the Chief

Chuck Hoskin Jr.
Principal Chief

Bryan Warner
Deputy Principal Chief

May 29, 2020

Rhonda Fair
Oklahoma Department of Transportation
Tribal Coordination
200 N.E. 21st Street, Room 3A8
Oklahoma City, OK 73105-3204

Re: JP 32100(04), Proposed bridge replacement and approach improvements on State Highway 100 over the Arkansas River at the Muskogee/Sequoyah County line

Dr. Rhonda Fair:

The Cherokee Nation (Nation) is in receipt of your correspondence about and related report for **JP 32100(04)**, and appreciates the opportunity to provide comment upon this project. Please allow this letter to serve as the Nation's interest in acting as a consulting party to this proposed project.

The Nation maintains databases and records of cultural, historic, and pre-historic resources in this area. Our Historic Preservation Office reviewed this project, cross referenced the project's legal description against our information, and found instances where this project is within close proximity to the following resources:

- The CHEROKEE TRAIL OF TEARS, Drew Detachment in the SE/4, S7, T12N, R21E;
- Gore Cemetery in the SW/4 SE/4, S7, T12N, R21E;
- A Trail of Tears marker in the NE/4 SW/4, S18, T12N, R20E;
- Vann Cemetery in the SW/4 NW/4, S18, T12N, R20E. Lynch and Park Cemetery are alternative names for this resource;
- Culturally sensitive resources located in S13, T12N, R21E.

To complete the proposed review, this Office requests a copy of the related State Historic Preservation Office's comments.

Additionally, the Nation requests that the Oklahoma Department of Transportation conduct appropriate inquiries with other pertinent Historic Preservation Offices regarding historic and prehistoric resources not included in the Nation's databases or records.

If you require additional information or have any questions, please contact me at your convenience. Thank you for your time and attention to this matter.

Wado,



Elizabeth Toombs, Tribal Historic Preservation Officer
Cherokee Nation Tribal Historic Preservation Office
elizabeth-toombs@cherokee.org
918.453.5389

OKLAHOMA DEPARTMENT OF TRANSPORTATION

Tribal Coordination
200 N.E. 21st Street, Room 3A8
Oklahoma City, OK 73105-3204
www.odot.org

May 24, 2019

Kialegee Tribal Town
Attn: Mekko Jeremiah Hobia
P.O. Box 332
Wetumka, OK 74883

Dear Mekko Hobia:

Re: Section 106 consultation for proposed Federal-Aid undertaking in Muskogee County, Oklahoma; JP# 32100(04)

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

County	Muskogee	**Job Piece #**	32100(04)	**Anticipated Let Date**	2023
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Location	Sec 18 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 405.521.3632 or email at rfair@odot.org.

Sincerely,

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

cc: Historic Preservation Office

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

May 1, 2020

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Attn: Mekko Jeremiah Hobia
P.O. Box 332
Wetumka, OK 74883

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County	Muskogee	**Job Piece #**	32100(04)	**Anticipated Let Date**	2023
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This investigation reexamined previously recorded site 34SQ326 and updated the documentation for the site. The current investigation confirmed that 34SQ326 is not eligible for inclusion in the National Register of Historic Places. Gore Cemetery is outside of but adjacent to the project area and is not eligible for inclusion in the NRHP. 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

OKLAHOMA DEPARTMENT OF TRANSPORTATION

Tribal Coordination
200 N.E. 21st Street, Room 3A8
Oklahoma City, OK 73105-3204
www.odot.org

May 24, 2019

Muscogee (Creek) Nation
Attn: Principal Chief James Floyd
P.O. Box 580
Okmulgee, OK 74447

Dear Principal Chief Floyd:

Re: Section 106 consultation for proposed Federal-Aid undertaking in Muskogee County, Oklahoma; JP# 32100(04)

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

County	Muskogee	**Job Piece #**	32100(04)	**Anticipated Let Date**	2023
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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.

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If you have any questions or would like to meet regarding this project, please contact me by telephone at 405.521.3632 or email at rfair@odot.org.

Sincerely,

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

cc: Tribal Historic Preservation Office

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

May 1, 2020

Muscogee (Creek) 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 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 #**	32100(04)	**Anticipated Let Date**	2023
Project description	Bridge replacement and approach improvements on State Highway 100 over the Arkansas River at the Muskogee/Sequoyah County line				

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This investigation reexamined previously recorded site 34SQ326 and updated the documentation for the site. The current investigation confirmed that 34SQ326 is not eligible for inclusion in the National Register of Historic Places. Gore Cemetery is outside of but adjacent to the project area and is not eligible for inclusion in the NRHP. 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: Tribal Historic Preservation Office

OKLAHOMA DEPARTMENT OF TRANSPORTATION

Tribal Coordination
200 N.E. 21st Street, Room 3A8
Oklahoma City, OK 73105-3204
www.odot.org

May 24, 2019

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

Dear Principal Chief Standing Bear:

Re: Section 106 consultation for proposed Federal-Aid undertaking in Muskogee County, Oklahoma; JP# 32100(04)

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

County	Muskogee	**Job Piece #**	32100(04)	**Anticipated Let Date**	2023
Project description	Bridge replacement and approach improvements on State Highway 100 over the Arkansas River at the Muskogee/Sequoyah County line				
Location	Sec 18 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 405.521.3632 or email at rfair@odot.org.

Sincerely,

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

cc: Tribal Historic Preservation Office

Osage Nation Historic Preservation Office

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Date: **July 3, 2019** **File: 1819-4063OK-5**

RE: **ODOT, 31200(04), Bridge Replacement and Approach Improvements on SH-100 over the Arkansas River at the Muskogee/Sequoyah County Line, Muskogee County, Oklahoma**

Oklahoma Department of Transportation
Rhonda Fair
200 NE 21st Street, Room 3A8
Oklahoma City, OK 73105-3204

Dear Dr. Fair,

The Osage Nation Historic Preservation Office has received notification and accompanying information for the proposed project **ODOT, 31200(04), Bridge Replacement and Approach Improvements on SH-100 over the Arkansas River at the Muskogee/Sequoyah County Line, Muskogee County, Oklahoma**. The proposed undertaking is bisected by the Illinois-White River Trace and is located approximately 1.25 miles southwest of the Osage Trace. Expedient graves and temporary hunting camps may be located along these trails. I understand that the cultural resources survey is scheduled to be performed in the near future. This office looks forward to reviewing the final report.

The Osage Nation requests that the report include a project site plan map indicating the locations of screened shovel tests labeled by their field identification numbers and a table listing shovel test locations, width (cm), actual depth (cm) of each level, soils of each level, and results. Shovel test minimum width is 30 cm. Shovel test minimum depth is to 50 cm or sterile soil, whichever is encountered first. If terminated before sterile soil is reached, please provide an explanation either in the text of in the shovel test log.

In accordance with the National Historic Preservation Act, (NHPA) [16 U.S.C. 470 §§ 470-470w-6] 1966, undertakings subject to the review process are referred to in S101 (d) (6) (A), which clarifies that historic properties may have religious and cultural significance to Indian tribes. Additionally, Section 106 of NHPA requires Federal agencies to consider the effects of their actions on historic properties (36 CFR Part 800) as does the National Environmental Policy Act (43 U.S.C. 4321 and 4331-35 and 40 CFR 1501.7(a) of 1969). The Osage Nation has a vital interest in protecting its historic and ancestral cultural resources, which are protected under the NHPA, NEPA, the Native American Graves Protection and Repatriation Act, and Osage law, and appreciates your consideration of the provided information in the planning process.

Should you have any questions or need any additional information, please feel free to contact me at the number listed below. Thank you for consulting with the Osage Nation on this matter.

Sincerely,

James Munkres
Archaeologist

627 Grandview Ave. * Pawhuska, OK 74056 Telephone 918-287-5328 * Fax 918-287-5376
HistoricPreservation@osagenation-nsn.gov

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

May 1, 2020

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	**Job Piece #**	32100(04)	**Anticipated Let Date**	2023
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In accordance with 36 CFR Part 800.4, the proposed project area 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 reexamined previously recorded site 34SQ326 and updated the documentation for the site. The current investigation confirmed that 34SQ326 is not eligible for inclusion in the National Register of Historic Places. Gore Cemetery is outside of but adjacent to the project area and is not eligible for inclusion in the NRHP. 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: Tribal Historic Preservation Office

Rhonda Fair

From: Johnnie Jacobs <johnnie.jacobs.ctr@osagenation-nsn.gov>
Sent: Saturday, June 6, 2020 2:11 PM
To: Rhonda Fair
Subject: [External] 1920-1368OK-10, ODOT, SH-100: Bridge over the Arkansas River at the Muskogee/Sequoyah County Line, Muskogee and Sequoyah Co.

Date: June 6, 2020 **File: 1920-1368OK-10**

RE: BIA, ODOT, SH-100: Bridge over the Arkansas River at the Muskogee/Sequoyah County Line, Muskogee County, Job Piece Number 32100(04), Project Number J3-2100(004), Bridge Replacement, Muskogee and Sequoyah Counties

Oklahoma Department of Transportation
Dr. Rhonda Fair
200 N.E. 21st Street
Oklahoma City, OK 73105-3204

Dear Dr. Fair,

The Osage Nation Historic Preservation Office has evaluated your submission and cannot concur with the finding "no effect" for the proposed BIA, ODOT, SH-100: Bridge over the Arkansas River at the Muskogee/Sequoyah County Line, Muskogee County, Job Piece Number 32100(04), Project Number J3-2100(004), Bridge Replacement, Muskogee and Sequoyah Counties. Because site 34SQ326 has not been fully delineated, we are unable to access the possible effect to this site. **The Osage Nation does not make findings of determination based on portions of sites, thus we request this site to be avoided.** The Nation also request copies of the shovel test maps and logs for the entire project.

In accordance with the National Historic Preservation Act, (NHPA) [16 U.S.C. 470 §§ 470-470w-6] 1966, undertakings subject to the review process are referred to in S101 (d) (6) (A), which clarifies that historic properties may have religious and cultural significance to Indian tribes. Additionally, Section 106 of NHPA requires Federal agencies to consider the effects of their actions on historic properties (36 CFR Part 800) as does the National Environmental Policy Act (43 U.S.C. 4321 and 4331-35 and 40 CFR 1501.7(a) of 1969).

The Osage Nation has a vital interest in protecting its historic and ancestral cultural resources which are protected under the NHPA, NEPA, the Native American Graves Protection and Repatriation Act, and Osage law, and appreciates your consideration of the provided information in the planning process.

Should you have any questions or need any additional information please feel free to contact me at the number and/or email address listed below. Thank you for consulting with the Osage Nation on this matter.

Thank you,

Miss Johnnie Jacobs
Historic Preservation Specialist
Osage Nation Historic Preservation Office
627 Grandview Avenue
Pawhuska, OK 74056

Rhonda Fair

From: Rhonda Fair
Sent: Monday, June 8, 2020 2:58 PM
To: Johnnie Jacobs
Cc: Scott Sundermeyer (SSundermeyer@odot.org); Greg Maggard (GMaggard@odot.org); Nicholas Beale (NBEALE@ODOT.ORG)
Subject: RE: 1920-1368OK-10, ODOT, SH-100: Bridge over the Arkansas River at the Muskogee/Sequoyah County Line, Muskogee and Sequoyah Co.

Dear Johnnie,

Thank you for the response regarding the above referenced project.

Site 34SQ326 is a previously recorded archaeological site reexamined and documented during this investigation. The site was originally assessed as not eligible for the National Register of Historic Places (NRHP). ODOT's investigation added to what is known about 34SQ326 and extended the site's boundaries, but did not change the original assessment, and the site continues to be assessed as not eligible for the NRHP.

More specifically, Component 1 (the prehistoric component) is represented by a moderate to low density of lithic debitage lacking any formal tools or features recovered from a highly disturbed context. The current investigations confirmed the original assessment that the prehistoric component is not eligible for inclusion in the NRHP, pursuant to 36 CFR 60.4.

Component 2 is the remnant of a small residential occupation (ca. 1835-1867) represented in only three shovel tests. Pursuant to 36 CFR 60.4, due to paucity of artifacts, lack of features, overprinting and mixture of artifacts from Component 3, and the overall highly disturbed context, Component 2 does not retain the integrity necessary to convey significance and is not eligible for inclusion on the NRHP.

Component 3 consists of the remnants of a late-nineteenth to mid-twentieth century occupation located on the slopes of a natural levee and now occupied by a mobile home. This component lacks features and is extensively disturbed due to modern agricultural practices. Pursuant to 36 CFR 60.4, due to lack of diagnostic artifacts or features and modern disturbances Component 3 is not eligible for inclusion in the NRHP.

While archaeologists fully delineated Components 2 and 3, they were unable to determine the exact boundaries of Component 1 as doing so was far beyond the scope of work for this project. Additionally, their efforts extended several hundred meters beyond the study area and to continue on would have required permission of additional landowners which had not been secured prior to field investigations due to their distance from the actual project location.

Given the uncertainty regarding the boundaries of Component 1, the portion of 34SQ326 that extends outside of the area of potential effect is listed for avoidance.

Regarding your request for shovel test logs and maps, I am unable to provide the requested information at this time.

All the best,

Rhonda

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

OKLAHOMA DEPARTMENT OF TRANSPORTATION

Tribal Coordination
200 N.E. 21st Street, Room 3A8
Oklahoma City, OK 73105-3204
www.odot.org

May 24, 2019

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

Dear Mekko Morrow:

Re: Section 106 consultation for proposed Federal-Aid undertaking in Muskogee County, Oklahoma; JP# 32100(04)

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

County	Muskogee	**Job Piece #**	32100(04)	**Anticipated Let Date**	2023
Project description	Bridge replacement and approach improvements on State Highway 100 over the Arkansas River at the Muskogee/Sequoyah County line				
Location	Sec 18 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				

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If you have any questions or would like to meet regarding this project, please contact me by telephone at 405.521.3632 or email at rfair@odot.org.

Sincerely,

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

cc: Janet Maylen, THPO

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

May 1, 2020

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

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Project description	Bridge replacement and approach improvements on State Highway 100 over the Arkansas River at the Muskogee/Sequoyah County line				

In accordance with 36 CFR Part 800.4, the proposed project area 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 reexamined previously recorded site 34SQ326 and updated the documentation for the site. The current investigation confirmed that 34SQ326 is not eligible for inclusion in the National Register of Historic Places. Gore Cemetery is outside of but adjacent to the project area and is not eligible for inclusion in the NRHP. 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: Galen Cloud, THPO

OKLAHOMA DEPARTMENT OF TRANSPORTATION

Tribal Coordination
200 N.E. 21st Street, Room 3A8
Oklahoma City, OK 73105-3204
www.odot.org

May 24, 2019

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

Dear Chief Bunch:

Re: Section 106 consultation for proposed Federal-Aid undertaking in Muskogee County, Oklahoma; JP# 32100(04)

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

County	Muskogee	**Job Piece #**	32100(04)	**Anticipated Let Date**	2023
Project description	Bridge replacement and approach improvements on State Highway 100 over the Arkansas River at the Muskogee/Sequoyah County line				
Location	Sec 18 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 405.521.3632 or email at rfair@odot.org.

Sincerely,

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

cc: Erin Thompson / Charlotte Wolf

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

May 1, 2020

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

Dear Chief Bunch:

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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

OKLAHOMA DEPARTMENT OF TRANSPORTATION

Tribal Coordination
200 N.E. 21st Street, Room 3A8
Oklahoma City, OK 73105-3204
www.odot.org

May 24, 2019

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

Dear President Parton:

Re: Section 106 consultation for proposed Federal-Aid undertaking in Muskogee County, Oklahoma; JP# 32100(04)

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

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If you have any questions or would like to meet regarding this project, please contact me by telephone at 405.521.3632 or email at rfair@odot.org.

Sincerely,

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

cc: Gary McAdams, THPO

OKLAHOMA Transportation

Tribal Coordination
200 N.E. 21st Street
Oklahoma City, OK 73105
www.odot.org

May 1, 2020

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

Dear President Parton:

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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: Mary Botone, THPO

BIOLOGICAL STUDIES

BIOLOGICAL STUDIES TRACKING FORM

NEPA Project Manager	Scott Stegman / Kathy Koon
State or Local Government Project	State
USFWS TAILS #	**02EKOK00-2021-SLI-1166** (Previously 02EKOK00-2020-SLI-0433 and 02EKOK00-2019-SLI-3026)
Original IPaC List	8/15/2019
Email used to request IpaC official species list	cmiller@cpyi.com; mcross@cpyi.com
Last Updated Species List Date	3/16/2021
ROW	2021
Let Date	2023
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:	CP&Y
Most Recent Field Date:	3/17/2021
Original Report Date:	10/8/2019 Revised 10/6/2020
USFWS Consultation Submittal:	11/10/2020
USFWS Concurrence:	1/20/2021
Original Tracking Form Prepared by:	Elizabeth Nichols
Original Tracking Form date:	1/20/2021
Update Reason	Change in Scope and Footprint
Updated By Whom:	CP&Y
Updated Report date:	3/23/2021
Amended USFWS Consultation Submittal:	4/12/2021
Amended USFWS Concurrence:	5/14/2021
Tracking Form Updated By Whom:	Elizabeth Nichols
Tracking Form Updated Date:	5/17/2021
Update Reason	Click here to enter text.
Updated By Whom:	Click here to enter text.
Updated Report date:	Click here to enter a date.
Amended USFWS Consultation Submittal:	Click here to enter a date.
Amended USFWS Concurrence:	Click here to enter a date.
Tracking Form Updated By Whom:	Click here to enter text.
Tracking Form Updated Date:	Click here to enter a date.

Form Date: June 2019

Project Name from Oracle

SH-100 over the Arkansas River at the Muskogee County line

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 Check if Yes	Effect Determination for IPaC listed species
Red-cockaded Woodpecker	Endangered	☐	Choose an item.
Whooping Crane	Endangered	☒	May Affect, Not likely to adversely affect
Gray Bat	Endangered	☒	May Affect, Not likely to adversely affect
Indiana Bat	Endangered	☒	Final Effect Analysis and Determination coverd in the Programmatic BA & BO
Ozark Big-eared Bat	Endangered	☒	May Affect, Not likely to adversely affect
Neosho Mucket	Endangered	☒	No Effect
Ouachita Rock Pocketbook	Endangered	☐	Choose an item.
Scaleshell Mussel	Endangered	☐	Choose an item.
Winged Mapleleaf	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
Piping Plover	Threatened	☒	May Affect, Not likely to adversely affect
Red Knot	Threatened	☒	No Effect
Northern Long-eared Bat	Threatened	☒	Final Effect Analysis and Determination covered in the Programmatic BA & BO
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.
American Alligator	Threatened	☐	Choose an item.
Rabbitsfoot Mussel	Threatened	☒	No Effect
Rattlesnake-master Borer Moth	Candidate	☐	Choose an item.
Whooping Crane Critical Habitat	Designated	☐	Choose an item.
Arkansas River Shiner Critical Habitat	Designated	☐	Choose an item.
Leopard Darter Critical Habitat	Designated	☐	Choose an item.
Neosho Mucket Critical Habitat	Designated	☐	Choose an item.
Rabbitsfoot Critical Habitat	Designated	☐	Choose an item.

		NEPA Footprint	Construction Footprint
Number of acres within the NEPA Study Footprint & Construction Footprint (if known)		35.5	Click here to enter text.
Number of acres of perennial plant vegetation (ABB habitat) within the NEPA Footprint & Construction Footprint (if known)		8.4	Click here to enter text.
Number of acres of forested/wooded area (Ibat and NLEB habitat) within the NEPA Footprint & Construction Footprint (if known)		8.6	Click here to enter text.
Indiana Bat	Acres of tree removal within 100 feet of pavement	6.49	Click here to enter text.
	Acres of tree removal 100-300 feet from pavement	2.14	Click here to enter text.
	Acres of tree removal beyond 300 feet from pavement	0	0

ABB Conservation Lands adjacent	NO
Gray Bat Cave Buffer	Outside any known cave buffer

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

Species (choose those that apply)	**Seasonal Restriction Period**
Bats	April 1 – November 15
Bald Eagle (NEST PRESENT)	September 16 – May 31
Migratory Birds: Swallows and Phoebes (NESTS PRESENT)	March 1 – August 31
Migratory Birds: Interior Least Tern	May 1 – August 31

Conservation Commitments

ODOT Commitment: A representative from ODOT Natural Resources Program will need to attend all project development meetings, including the pre-work meeting for the project. It will be the responsibility of the Environmental Project Manager to notify the ODOT Natural Resources Program of any such meetings. All operators, employees, and contractors 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 Minimization Commitment: In order to avoid and minimize adverse impacts to listed bat species, the removal of trees and shrubs shall 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, during the design of the project. Tree removal will be limited to that specified in the project plans provided to contractors.

Indiana Bat Mitigation Commitment: Suitable forested roosting habitat for the Indiana bat has been identified within the immediate vicinity of the proposed project. An acoustic survey to detect for the presence of bats will be conducted. Removal of any trees, including tree clearing for utility relocation, is prohibited until the acoustic survey can be conducted (May 1 to August 15 survey window). If the survey is positive, ODOT will mitigate for impacts to the species. In addition, all removal of trees and shrubs must be mitigated for adverse impacts to Indiana bat habitat based on when tree removal will occur. In order to mitigate adverse impacts to Indiana bat habitat, the ODOT EPM will submit 65% (Right of Way submittal) plans, and Microstation or shapefiles to the ODOT Biologist well in advance of project letting in order to delineate impacts to bat habitat, coordinate with USFWS and to assess mitigation payment totals. Payment must be made prior to any ground disturbance and/or tree removal, including but not limited to utility relocation and construction activities. Proof of mitigation is required by USFWS prior to any tree removal. Once the ODOT Biologist has received confirmation of payment, the EPM will be notified.

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 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 OKRl0 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 Seasonal Restriction Note: The gray bat, Indiana bat, Ozark big-eared bat and the northern long-eared 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 16, and March 31 (when bats are hibernating in caves). If bridge repair, retrofit, maintenance, rehabilitation or demolition during the active season (between April 1, and November 15) 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 16, and March 31 (when bats are hibernating in caves).

Bat Tree Removal Seasonal Restriction Note: The gray bat, Indiana bat, Ozark big-eared bat and northern long-eared bat are listed bat species that occur within the project's action area. In order to avoid adverse impacts to these species, 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 is positive, all removal of trees will be permitted only between August 1 and April 30, outside the pupping season. In addition, ODOT Environmental Programs Division will reconsult with USFWS to mitigate adverse impacts prior to any tree clearing (including utilities).

Bat Lighting Note: All temporary lighting, if used, will be directed away from suitable bat habitat during the active season for bats (April 1- November 15). 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.

Whooping Crane Plan Note: If Whooping Cranes are seen at or within one mile of the proposed work site, the Resident Engineer shall immediately contact the ODOT Biologist. If there is a confirmed sighting and/or Whooping Cranes are observed within one mile of the proposed work site, all construction activities shall cease until it is determined that Whooping Cranes have left the project vicinity without being harassed.

Bald Eagle Nest Avoidance Note: The Bald Eagle nesting season in Oklahoma extends from September 16, through May 31. Nest search surveys can only be conducted when leaves are not on the trees, typically between December 1st and February 28th. Survey results are valid only for the nesting season in which the survey is performed. A Bald Eagle survey was completed for this project in **January 2021**. Nests were observed within the expected impact area. A no-work buffer shall be placed around the nest from STA.284+00 extending to the east end of the project area (see Figure 1 attached). If the buffer cannot be maintained, all clearing, external construction and landscaping activities within 1,000 feet of the nest 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 SH-100 Arkansas River bridge (NBI:17611) was observed. Painting, repair, retrofit, rehabilitation or demolition of the existing bridge 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 bridge 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.

Interior Least Tern Note: Interior Least Terns are protected by the federal Migratory Bird Treaty Act. Interior Least Terns nesting habitat is present within and downstream of the Arkansas River within the project area. The Resident Engineer shall contact the ODOT Biologist to schedule a pre-construction nesting survey during the month of June; surveys are valid for that nesting season only. If construction activities will occur during the active nesting season for this species (May 1 through August 31), a 0.25 mile no-work-zone buffer from the Ordinary High Water Mark of the Arkansas River will be established until the nesting survey can be completed. If the survey finds Interior Least Terns nesting in the area, all work within 0.25 miles of any nesting colonies will be postponed until after September 1 (the end of nesting season) and be completed by April 30, the following year.

Waters and Wetlands Delineation Status

Updated delineation

Wetlands and Ponds

Total Number of Sites	Water Body Type	Potential Jurisdiction Status	Acres within the NEPA Footprint
2	Forested Wetland	Likely Jurisdictional	0.37

Streams and Drainages

Total Number of sites	Water body name	USGS Designation	Potential Jurisdictional Status	Acres within the NEPA Footprint	Liner Feet within the NEPA Footprint
1	Arkansas River	mapped perennial	Likely Jurisdictional	22.97	600

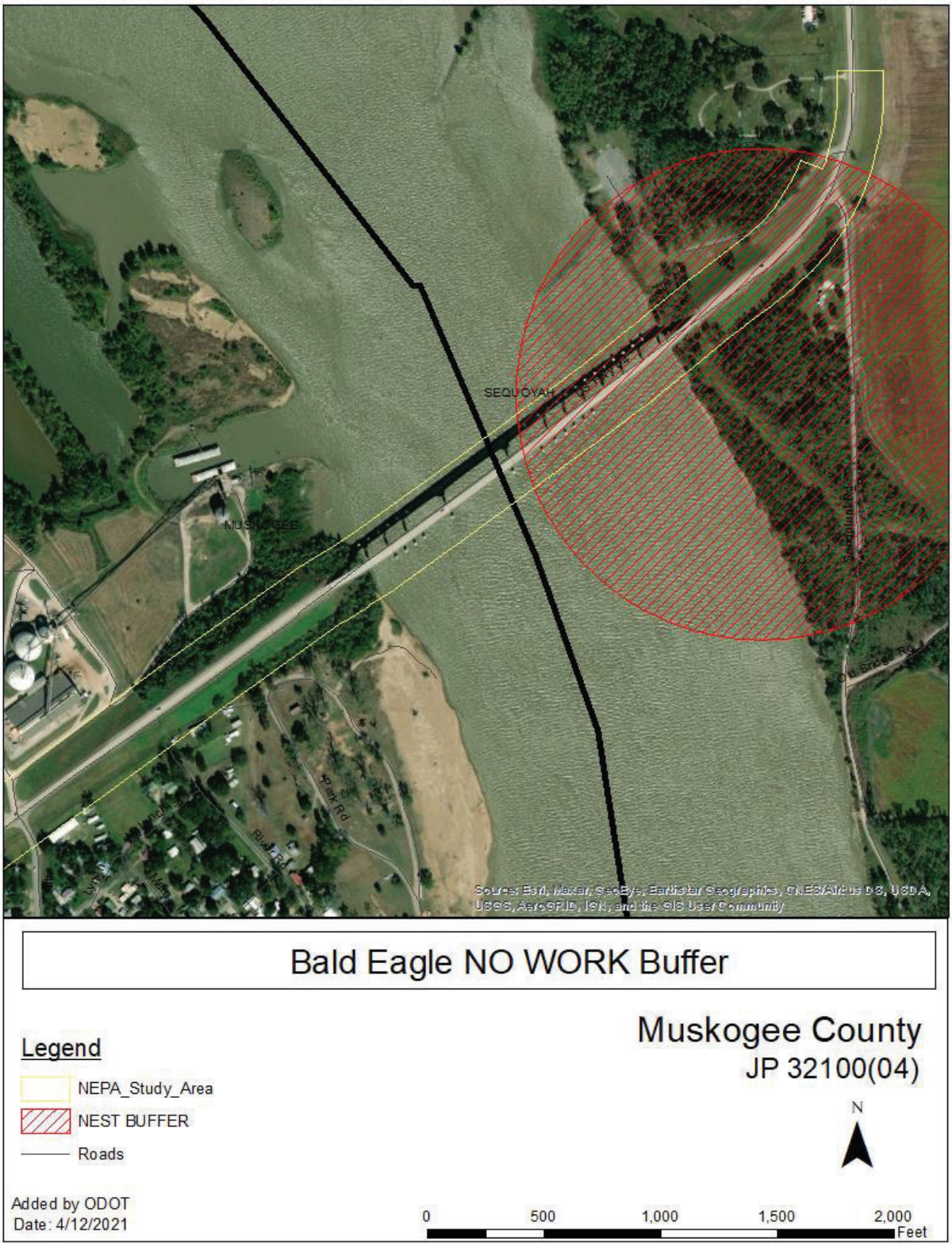


Figure 1. No work buffer between September 16 to May 31, for active Bald Eagle nest.

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
http://www.fws.gov/southwest/es/Oklahoma/

In Reply Refer To: April 12, 2021
Consultation code: 02EKOK00-2021-TA-1166
Event Code: 02EKOK00-2021-E-03568
Project Name: JP 32100(04) SH100 over Arkansas River

Subject: Verification letter for 'JP 32100(04) SH100 over Arkansas River' project under the October 15, 2020, Programmatic Biological Opinion on Final 4(d) Rule for the American burying beetle and Activities Excepted from Take Prohibitions (50 CFR § 17.47(d), Federal Register Citation 85 FR 65241).

Dear Elizabeth Nichols:

The U.S. Fish and Wildlife Service (Service) received on **April 12, 2021** your effect determination(s) for the 'JP 32100(04) SH100 over Arkansas River' (the Action) using the American burying beetle (*Nicrophorus americanus*) determination key within the Information for Planning and Consultation (IPaC) system.

This determination key assists users in determining whether a Federal action is consistent with the activities analyzed in the Service's October 15, 2020, Programmatic Biological Opinion (PBO). The PBO addresses activities excepted from incidental "take"[1] prohibitions applicable to the American burying beetle under the Endangered Species Act of 1973 (Act) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based upon your IPaC submission, the Action is consistent with activities analyzed in the PBO. The Action may affect the American burying beetle; however, any incidental take that may occur as a result of the Action is not prohibited under the Act Section 4(d) rule adopted for this species at 50 CFR §17.47(d). **Unless the Service advises you within 30 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the PBO satisfies and concludes your responsibilities for this Action under Act Section 7(a)(2) with respect to the American burying beetle.**

Please report any changes to the information about the Action that you submitted in IPaC, the results of any American burying beetle surveys conducted in the Action area, and any dead, injured, or sick American burying beetles that are found during Action implementation. If the

Action is not completed within one year of the date of this letter, you must update and resubmit the information required in the IPaC key.

This IPaC-assisted determination allows you to rely on the PBO for compliance with Act Section 7(a)(2) only for the American burying beetle.

---

[1]Take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct (Act, Section 3(19)).

This letter covers only the American burying beetle. It **does not** apply to the following ESA-protected species that also may occur in the Action area:

- Gray Bat *Myotis grisescens* Endangered
- Indiana Bat *Myotis sodalis* Endangered
- Neosho Mucket *Lampsilis rafinesqueana* Endangered
- Northern Long-eared Bat *Myotis septentrionalis* Threatened
- Ozark Big-eared Bat *Corynorhinus (=Plecotus) townsendii ingens* Endangered
- Piping Plover *Charadrius melodus* Threatened
- Rabbitsfoot *Quadrula cylindrica cylindrica* Threatened
- Red Knot *Calidris canutus rufa* Threatened
- Whooping Crane *Grus americana* Endangered

If your project may affect additional listed species, you must evaluate additional DKeys for other species, or submit a request for consultation for the additional species to your local Ecological Services Field Office.

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

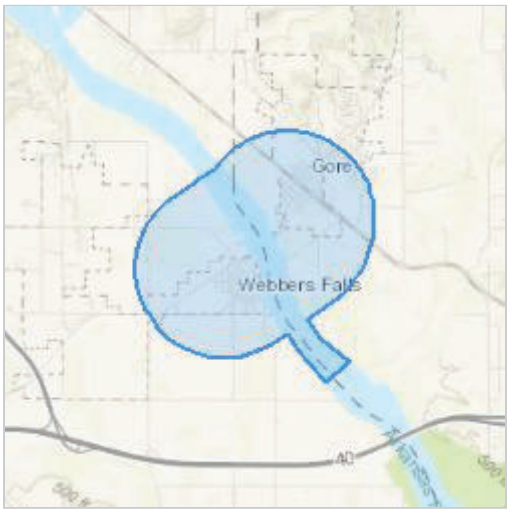
JP 32100(04) SH100 over Arkansas River

2. Description

The following description was provided for the project 'JP 32100(04) SH100 over Arkansas River':

> Bridge and approaches replacement project of SH-100 over the Arkansas River located near Grove, Oklahoma in Muskogee County (Previously associated with IPAC 02EKOK00-2020-SLI-0433 and 02EKOK00-2019-SLI-3026)

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@35.51694165,-95.12853052580647,14z



Qualification Interview

1. Is the action authorized, funded, or being carried out by a Federal agency?

   Yes

2. Have you determined that the proposed action will have “no effect” on the American burying beetle? (If you are unsure select "No")

   No

3. Will your activity **purposefully take** American burying beetles?

   No

4. Is your project wholly inside the 4d rule Analysis Area? For areas of your project occurring inside the Analysis Area (New England, Northern Plains, Southern Plains), your project may qualify for exemptions. For areas of your project occurring outside the Analysis Area, all incidental take is exempted according to the ABB 4d Rule.

   Automatically answered
   Yes

5. Is American burying beetle suitable habitat present within the action area?

   Yes

6. Will suitable habitat be affected by the proposed action? Suitable habitat may be impacted if the action involves soil disturbance, use of vehicles or heavy equipment, artificial lighting, vegetation removal, use of herbicides, pesticides, other hazardous chemicals.

   Yes

Project Questionnaire

Please select the activity that best matches your proposed action.

8. Soil disturbance related to road construction and maintenance

If you chose 13 above, please describe below. If you did not choose 13 above, please type "0".

0

Estimate the total acres of suitable American burying beetle habitat that may be affected.

8.4

Please estimate the total number of acres of **temporary impacts** to American burying beetle habitat. See definitions

8.4

Please estimate the total number of acres of **permanent impacts** to American burying beetle habitat. See definitions

8.4

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
http://www.fws.gov/southwest/es/Oklahoma/

IPaC Record Locator: 659-101119101 April 12, 2021

Subject: Consistency letter for the 'JP 32100(04) SH100 over Arkansas River' project (no current TAILS record) under the revised February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat.

To whom it may concern:

The U.S. Fish and Wildlife Service (Service) has received your request to verify that the **JP 32100(04) SH100 over Arkansas River** (Proposed Action) may rely on the revised February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (PBO) to satisfy requirements under Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 *et seq.*).

Based on the information you provided (Project Description shown below), you have determined that the Proposed Action is within the scope and adheres to the criteria of the PBO, including the adoption of applicable avoidance and minimization measures, and may affect, and is likely to adversely affect the endangered Indiana bat (*Myotis sodalis*) and/or the threatened Northern long-eared bat (*Myotis septentrionalis*). Consultation with the Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) is required.

This "may affect - likely to adversely affect" determination becomes effective when the lead Federal action agency or designated non-federal representative requests the Service rely on the PBO to satisfy the agency's consultation requirements for this project. Please provide this consistency letter to the lead Federal action agency or its designated non-federal representative for review, and as the agency deems appropriate, transmit to this Service Office for verification that the project is consistent with the PBO.

This Service Office will respond by letter to the requesting Federal action agency or designated non-federal representative within 30 calendar days to:

- verify that the Proposed Action is consistent with the scope of actions covered under the PBO;
- verify that all applicable avoidance, minimization, and compensation measures are included in the action proposal;
- identify any action-specific monitoring and reporting requirements, consistent with the monitoring and reporting requirements of the PBO, and
- identify anticipated incidental take.

ESA Section 7 compliance for this Proposed Action is not complete until the Federal action agency or its designated non-federal representative receives a verification letter from the Service.

For Proposed Actions that include bridge/structure removal, replacement, and/or maintenance activities: If your initial bridge/structure assessments failed to detect Indiana bats, but you later detect bats during construction, please submit the Post Assessment Discovery of Bats at Bridge/Structure Form (User Guide Appendix E) to this Service Office. In these instances, potential incidental take of Indiana bats may be exempted provided that the take is reported to the Service.

If the Proposed Action may affect any other federally-listed or proposed species and/or designated critical habitat, additional consultation between the lead Federal action agency and this Service Office is required. If the proposed action has the potential to take bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act may also be required. In either of these circumstances, please advise the lead Federal action agency accordingly.

The following species may occur in your project area and **are not** covered by this determination:

- American Burying Beetle *Nicrophorus americanus* Threatened
- Gray Bat *Myotis grisescens* Endangered
- Neosho Mucket *Lampsilis rafinesqueana* Endangered
- Ozark Big-eared Bat *Corynorhinus (=Plecotus) townsendii ingens* Endangered
- Piping Plover *Charadrius melodus* Threatened
- Rabbitsfoot *Quadrula cylindrica cylindrica* Threatened
- Red Knot *Calidris canutus rufa* Threatened
- Whooping Crane *Grus americana* Endangered

Project Description

The following project name and description was collected in IPaC as part of the endangered species review process.

Name

JP 32100(04) SH100 over Arkansas River

Description

Bridge and approaches replacement project of SH-100 over the Arkansas River located near Grove, Oklahoma in Muskogee County (Previously associated with IPAC 02EKOK00-2020-SLI-0433 and 02EKOK00-2019-SLI-3026)

Determination Key Result

Based on your answers provided, this project is likely to adversely affect the endangered Indiana bat and/or the threatened Northern long-eared bat. Therefore, consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required. However, also based on your answers provided, this project may rely on the conclusion and Incidental Take Statement provided in the revised February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat.

Qualification Interview

1. Is the project within the range of the Indiana bat[1]?

   [1] See Indiana bat species profile

   Automatically answered
   Yes

2. Is the project within the range of the Northern long-eared bat[1]?

   [1] See Northern long-eared bat species profile

   Automatically answered
   Yes

3. Which Federal Agency is the lead for the action?

   A) Federal Highway Administration (FHWA)

4. Are *all* project activities limited to non-construction[1] activities only? (examples of non-construction activities include: bridge/abandoned structure assessments, surveys, planning and technical studies, property inspections, and property sales)

   [1] Construction refers to activities involving ground disturbance, percussive noise, and/or lighting.

   No

5. Does the project include *any* activities that are **greater than** 300 feet from existing road/rail surfaces[1]?

   [1] Road surface is defined as the actively used [e.g. motorized vehicles] driving surface and shoulders [may be pavement, gravel, etc.] and rail surface is defined as the edge of the actively used rail ballast.

   No

6. Does the project include *any* activities **within** 0.5 miles of a known Indiana bat and/or NLEB hibernaculum[1]?

   [1] For the purpose of this consultation, a hibernaculum is a site, most often a cave or mine, where bats hibernate during the winter (see suitable habitat), but could also include bridges and structures if bats are found to be hibernating there during the winter.

   No

7. Is the project located **within** a karst area?

   No

8. Is there *any* suitable[1] summer habitat for Indiana Bat or NLEB **within** the project action area[2]? (includes any trees suitable for maternity, roosting, foraging, or travelling habitat)

   [1] See the Service's summer survey guidance for our current definitions of suitable habitat.

   [2] The action area is defined as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action (50 CFR Section 402.02). Further clarification is provided by the national consultation FAQs.

   Yes

9. Will the project remove *any* suitable summer habitat[1] and/or remove/trim any existing trees **within** suitable summer habitat?

   [1] See the Service's summer survey guidance for our current definitions of suitable habitat.

   Yes

10. Will the project clear more than 20 acres of suitable habitat per 5-mile section of road/rail?

    No

11. Have presence/probable absence (P/A) summer surveys[1][2] been conducted[3][4] **within** the suitable habitat located within your project action area?

    [1] See the Service's summer survey guidance for our current definitions of suitable habitat.

    [2] Presence/probable absence summer surveys conducted within the fall swarming/spring emergence home range of a documented Indiana bat hibernaculum (contact local Service Field Office for appropriate distance from hibernacula) that result in a negative finding requires additional consultation with the local Service Field Office to determine if clearing of forested habitat is appropriate and/or if seasonal clearing restrictions are needed to avoid and minimize potential adverse effects on fall swarming and spring emerging Indiana bats.

    [3] For projects within the range of either the Indiana bat or NLEB in which suitable habitat is present, and no bat surveys have been conducted, the transportation agency will assume presence of the appropriate species. This assumption of presence should be based upon the presence of suitable habitat and the capability of bats to occupy it because of their mobility.

    [4] Negative presence/probable absence survey results obtained using the summer survey guidance are valid for a minimum of two years from the completion of the survey unless new information (e.g., other nearby surveys) suggest otherwise.

    No

12. Does the project include activities **within documented Indiana bat habitat**[1][2]?

    [1] Documented roosting or foraging habitat – for the purposes of this consultation, we are considering documented habitat as that where Indiana bats and/or NLEB have actually been captured and tracked using (1) radio telemetry to roosts; (2) radio telemetry biangulation/triangulation to estimate foraging areas; or (3) foraging areas with repeated use documented using acoustics. Documented roosting habitat is also considered as suitable summer habitat within 0.25 miles of documented roosts.)

    [2] For the purposes of this key, we are considering documented corridors as that where Indiana bats and/or NLEB have actually been captured and tracked to using (1) radio telemetry; or (2) treed corridors located directly between documented roosting and foraging habitat.

    No

13. Will the removal or trimming of habitat or trees occur **within** suitable but **undocumented Indiana bat** roosting/foraging habitat or travel corridors?

    Yes

14. What time of year will the removal or trimming of habitat or trees **within** suitable but **undocumented Indiana bat** roosting/foraging habitat or travel corridors occur[1]?

    [1] Coordinate with the local Service Field Office for appropriate dates.

    B) During the inactive season

15. Does the project include activities **within documented NLEB habitat**[1][2]?

    [1] Documented roosting or foraging habitat – for the purposes of this consultation, we are considering documented habitat as that where Indiana bats and/or NLEB have actually been captured and tracked using (1) radio telemetry to roosts; (2) radio telemetry biangulation/triangulation to estimate foraging areas; or (3) foraging areas with repeated use documented using acoustics. Documented roosting habitat is also considered as suitable summer habitat within 0.25 miles of documented roosts.)

    [2] For the purposes of this key, we are considering documented corridors as that where Indiana bats and/or NLEB have actually been captured and tracked to using (1) radio telemetry; or (2) treed corridors located directly between documented roosting and foraging habitat.

    No

16. Will the removal or trimming of habitat or trees occur **within** suitable but **undocumented NLEB** roosting/foraging habitat or travel corridors?

    Yes

17. What time of year will the removal or trimming of habitat or trees **within** suitable but **undocumented NLEB** roosting/foraging habitat or travel corridors occur?

    B) During the inactive season

18. Will *any* tree trimming or removal occur **within** 100 feet of existing road/rail surfaces?

    Yes

19. Will *any* tree trimming or removal occur **between** 100-300 feet of existing road/rail surfaces?

    Yes

20. Are *all* trees that are being removed clearly demarcated?

    Yes

21. Will the removal of habitat or the removal/trimming of trees include installing new or replacing existing **permanent** lighting?

    No

22. Does the project include wetland or stream protection activities associated with compensatory wetland mitigation?

    No

23. Does the project include slash pile burning?

    Yes

24. Does the project include *any* bridge removal, replacement, and/or maintenance activities (e.g., any bridge repair, retrofit, maintenance, and/or rehabilitation work)?

    Yes

25. Is there *any* suitable habitat[1] for Indiana bat or NLEB **within** 1,000 feet of the bridge? (includes any trees suitable for maternity, roosting, foraging, or travelling habitat)

    [1] See the Service's current summer survey guidance for our current definitions of suitable habitat.

    Yes

26. Has a bridge assessment[1] been conducted **within** the last 24 months[2] to determine if the bridge is being used by bats?

    [1] See User Guide Appendix D for bridge/structure assessment guidance

    [2] Assessments must be completed no more than 2 years prior to conducting any work below the deck surface on all bridges that meet the physical characteristics described in the Programmatic Consultation, regardless of whether assessments have been conducted in the past. Due to the transitory nature of bat use, a negative result in one year does not guarantee that bats will not use that bridge/structure in subsequent years.

    Yes

    SUBMITTED DOCUMENTS

    - *Muskogee County JP 3210004 Bat Bridge Assessment.pdf https://ecos.fws.gov/ipac/project/H4NNGXPVWNARZGXX4VJPGTFW3M/projectDocuments/101119011*

27. Did the bridge assessment detect *any* signs of Indiana bats and/or NLEBs roosting in/under the bridge (bats, guano, etc.)[1]?

    [1] If bridge assessment detects signs of *any* species of bats, coordination with the local FWS office is needed to identify potential threatened or endangered bat species. Additional studies may be undertaken to try to identify which bat species may be utilizing the bridge prior to allowing *any* work to proceed.

    Note: There is a small chance bridge assessments for bat occupancy do not detect bats. Should a small number of bats be observed roosting on a bridge just prior to or during construction, such that take is likely to occur or does occur in the form of harassment, injury or death, the PBO requires the action agency to report the take. Report all unanticipated take within 2 working days of the incident to the USFWS. Construction activities may continue without delay provided the take is reported to the USFWS and is limited to 5 bats per project.

    No

28. Will the bridge removal, replacement, and/or maintenance activities include installing new or replacing existing **permanent** lighting?

    No

29. Does the project include the removal, replacement, and/or maintenance of *any* structure other than a bridge? (e.g., rest areas, offices, sheds, outbuildings, barns, parking garages, etc.)

    No

30. Will the project involve the use of **temporary** lighting *during* the active season?

    Yes

31. Is there *any* suitable habitat **within** 1,000 feet of the location(s) where **temporary** lighting will be used?

    Yes

32. Will the project install new or replace existing **permanent** lighting?

    Yes

33. Is there *any* suitable habitat **within** 1,000 feet of the location(s) where **permanent** lighting will be installed or replaced?

    Yes

34. Does the project include percussives or other activities (**not including tree removal/ trimming or bridge/structure work**) that will increase noise levels above existing traffic/ background levels?

    Yes

35. Will the activities that use percussives (**not including tree removal/trimming or bridge/ structure work**) and/or increase noise levels above existing traffic/background levels be conducted *during* the active season[1]?

    [1] Coordinate with the local Service Field Office for appropriate dates.

    Yes

36. Will *any* activities that use percussives (**not including tree removal/trimming or bridge/structure work**) and/or increase noise levels above existing traffic/background levels be conducted *during* the inactive season[1]?

    [1] Coordinate with the local Service Field Office for appropriate dates.

    Yes

37. Are *all* project activities that are **not associated with** habitat removal, tree removal/trimming, bridge and/or structure activities, temporary or permanent lighting, or use of percussives, limited to actions that DO NOT cause any additional stressors to the bat species?

    Examples: lining roadways, unlighted signage , rail road crossing signals, signal lighting, and minor road repair such as asphalt fill of potholes, etc.

    Yes

38. Will the project raise the road profile **above the tree canopy**?

    No

39. Is the slash pile burning portion of this project consistent with a Not Likely to Adversely Affect determination in this key?

    Automatically answered
    Yes, because it is near suitable habitat and >0.5 miles from any hibernaculum

40. Are the project activities that use percussives (not including tree removal/trimming or bridge/structure work) consistent with a Not Likely to Adversely Affect determination in this key?

    Automatically answered
    Yes, because the activities are within 300 feet of the existing road/rail surface, greater than 0.5 miles from a hibernacula, and conducted during the active season within undocumented habitat.

41. Are the project activities that use percussives (not including tree removal/trimming or bridge/structure work) and/or increase noise levels above existing traffic/background levels consistent with a No Effect determination in this key?

    Automatically answered
    Yes, because the activities are within 300 feet of the existing road/rail surface, greater than 0.5 miles from a hibernacula, and conducted during the inactive season

42. Is the habitat removal portion of this project consistent with a Not Likely to Adversely Affect determination in this key?

    Automatically answered
    Yes, because the tree removal/trimming that occurs outside of the Indiana bat's active season occurs greater than 0.5 miles from the nearest hibernaculum, is less than 100 feet from the existing road/rail surface, includes clear demarcation of the trees that are to be removed, and does not alter documented roosts and/or surrounding summer habitat within 0.25 miles of a documented roost.

43. Is the habitat removal portion of this project consistent with a Likely to Adversely Affect determination in this key?

    Automatically answered
    Yes, because the tree removal that occurs outside the Indiana bat's active season is 100-300 feet from the existing road/rail surface, and is not in documented roosting/ foraging habitat or travel corridors.

44. Is the habitat removal portion of this project consistent with a Not Likely to Adversely Affect determination in this key?

    Automatically answered
    Yes, because the tree removal/trimming that occurs outside of the NLEB's active season occurs greater than 0.5 miles from the nearest hibernaculum, is less than 100 feet from the existing road/rail surface, includes clear demarcation of the trees that are to be removed, and does not alter documented roosts and/or surrounding summer habitat within 0.25 miles of a documented roost.

45. Is the habitat removal portion of this project consistent with a Likely to Adversely Affect determination in this key?

    Automatically answered
    Yes, because the tree removal that occurs outside the NLEB's active season is 100-300 feet from the existing road/rail surface, and is not in documented roosting/foraging habitat or travel corridors.

46. Is the bridge removal, replacement, or maintenance activities portion of this project consistent with a No Effect determination in this key?

    Automatically answered
    Yes, because the bridge has been assessed using the criteria documented in the BA and no signs of bats were detected

47. **General AMM 1**
    Will the project ensure *all* operators, employees, and contractors working in areas of known or presumed bat habitat are aware of *all* FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable Avoidance and Minimization Measures?

    Yes

48. **Tree Removal AMM 1**
    Can *all* phases/aspects of the project (e.g., temporary work areas, alignments) be modified, to the extent practicable, to avoid tree removal[1] in excess of what is required to implement the project safely?

    Note: Tree Removal AMM 1 is a minimization measure, the full implementation of which may not always be practicable. Projects may still be NLAA as long as Tree Removal AMMs 2, 3, and 4 are implemented and LAA as long as Tree Removal AMMs 3, 5, 6, and 7 are implemented.

    [1] The word “trees” as used in the AMMs refers to trees that are suitable habitat for each species within their range. See the USFWS’ current summer survey guidance for our latest definitions of suitable habitat.

    Yes

49. **Tree Removal AMM 3**
    Can tree removal be limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits)?

    Yes

50. **Lighting AMM 1**
    Will *all* **temporary** lighting be directed away from suitable habitat during the active season?

    Yes

51. **Lighting AMM 2**
    Does the lead agency use the BUG (Backlight, Uplight, and Glare) system developed by the Illuminating Engineering Society[1][2] to rate the amount of light emitted in unwanted directions?

    [1] Refer to Fundamentals of Lighting - BUG Ratings

    [2] Refer to The BUG System—A New Way To Control Stray Light

    No

52. **Lighting AMM 2**
    Will *all* **permanent** lighting use downward-facing, full cut-off[1] lens lights (with same intensity or less for replacement lighting)?

    [1] Refer to Luminaire classification for controlling stray light

    Yes

53. **Lighting AMM 2**
    Will *all* **permanent** lighting be directed away from *all* areas with suitable habitat?

    Yes

54. For Indiana bat, if applicable, compensatory mitigation measures are required to offset adverse effects on the species (see Section 2.10 of the BA). Please select the mechanism in which compensatory mitigation will be implemented:

    1. Range-wide In Lieu Fee Program, The Conservation Fund

Project Questionnaire

1. Have you made a No Effect determination for *all* other species indicated on the FWS IPaC generated species list?

   No

2. Have you made a May Affect determination for *any* other species on the FWS IPaC generated species list?

   Yes

3. How many acres[1] of trees are proposed for removal between 0-100 feet of the existing road/rail surface?

   [1] If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

   6.49

4. How many acres[1] of trees are proposed for removal between 100-300 feet of the existing road/rail surface?

   [1] If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

   2.14

5. **Please verify:**
   All tree removal will occur greater than 0.5 mile from any hibernaculum.

   Yes, I verify that all tree removal will occur greater than 0.5 miles from any hibernaculum.

6. Is the project location 0-100 feet from the edge of existing road/rail surface?

   Yes

7. Is the project location 100-300 feet from the edge of existing road/rail surface?

   Yes

8. **Please verify:**
   No documented Indiana bat roosts or surrounding summer habitat within 0.25 mile of documented roosts will be impacted between May 1 and July 31.

   Yes, I verify that no documented Indiana bat roosts or surrounding summer habitat within 0.25 mile of documented roosts will be impacted during this period.

9. **Please verify:**
   No documented NLEB roosts or surrounding summer habitat within 150 feet of documented roosts will be impacted between June 1 and July 31.

   Yes, I verify that no documented NLEB roosts or surrounding summer habitat within 150 feet of documented roosts will be impacted during this period.

10. Please describe the proposed bridge work:

    Replace bridge

11. Please state the timing of all proposed bridge work:

    Let is set for 2023

12. Please enter the date of the bridge assessment:

    3/17/2021

13. You have indicated that the following Avoidance and Minimization Measures (AMMs) will be implemented as part of the proposed project:
    - *Tree Removal AMM 1*
    - *Lighting AMM 1*
    - *Lighting AMM 2*
    - *Tree Removal AMM 3*

- *General AMM 1*

Avoidance And Minimization Measures (AMMs)

This determination key result includes the committment to implement the following Avoidance and Minimization Measures (AMMs):

TREE REMOVAL AMM 1

Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal.

LIGHTING AMM 1

Direct temporary lighting away from suitable habitat during the active season.

LIGHTING AMM 2

When installing new or replacing existing permanent lights, use downward-facing, full cut-off lens lights (with same intensity or less for replacement lighting); or for those transportation agencies using the BUG system developed by the Illuminating Engineering Society, be as close to 0 for all three ratings with a priority of "uplight" of 0 and "backlight" as low as practicable.

TREE REMOVAL AMM 3

Ensure tree removal is limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits).

GENERAL AMM 1

Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable AMMs.

Determination Key Description: FHWA, FRA, FTA Programmatic Consultation For Transportation Projects Affecting NLEB Or Indiana Bat

This key was last updated in IPaC on December 29, 2020. Keys are subject to periodic revision.

This decision key is intended for projects/activities funded or authorized by the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), and/or Federal Transit Administration (FTA), which may require consultation with the U.S. Fish and Wildlife Service (Service) under Section 7 of the Endangered Species Act (ESA) for the endangered **Indiana bat** (*Myotis sodalis*) and the threatened **Northern long-eared bat** (NLEB) (*Myotis septentrionalis*).

This decision key should only be used to verify project applicability with the Service's February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects. The programmatic biological opinion covers limited transportation activities that may affect either bat species, and addresses situations that are both likely and not likely to adversely affect either bat species. This decision key will assist in identifying the effect of a specific project/activity and applicability of the programmatic consultation. The programmatic biological opinion is not intended to cover all types of transportation actions. Activities outside the scope of the programmatic biological opinion, or that may affect ESA-listed species other than the Indiana bat or NLEB, or any designated critical habitat, may require additional ESA Section 7 consultation.

United States Department of the Interior
Fish and Wildlife Service

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

In Reply refer to:
02EKOK00-2021-F-1166

May 14, 2021

Basharat Siddiqi, Division Administrator
Federal Highway Administration
5801 North Robinson Avenue, Suite 300
Oklahoma City, Oklahoma 73118

Dear Mr. Siddiqi:

The U.S. Fish and Wildlife Service (Service) has reviewed your revised consultation package dated April 12, 2021, as submitted by the Oklahoma Department of Transportation, regarding the proposed project: **Muskogee County JP 32100(04)** (Project). This consultation was previously submitted under code 02EKOK00-2020-SLI-0433 in January, 2021, but the action has since changed and consultation was reinitated. The project would be located on State Highway 100 at a bridge (National Bridge Inventory (NBI) database number 17611) over the Arkansas River between Webbers Falls and Gore, Oklahoma at the Muskogee/Sequoyah County line.

Based on the information you have provided, the Project occurs within the ranges of the federally-listed gray bat (*Myotis grisecsens*), Ozark big-eared bat (*Corynorhinus (=Plecotus) townsendii ingens)*, whooping crane (*Grus americana*), and piping plover (*Charadrius melodus*), and you have determined that the Project may affect but is not likely to adversely affect these species. The Service concurs with that determination, based on your commitment to implement the conservation measures identified in the project description as submitted in the consultation request. This concludes your section 7 consultation pursuant to the Endangered Species Act of 1973 (Act; 87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq*.) related to the gray bat, Ozark big-eared bat, and piping plover for this Project.

According to the information you have provided, the Project also will occur within suitable habitat of the federally-listed threatened American burying beetle (*Nicrophorus americanus*; Beetle), and presence has been assumed. The Federal Highway Administration has chosen to utilize the biological opinion (02EKOK00-2020-F-3018) developed for the Beetle 4(d) special rule to ensure compliance with the Act for this Project. Conservation measures have been included in the consultation request. If Project activities have not commenced within one calendar year from the date of our response pertaining to the Beetle, a new response letter will be required.

You have further determined that this project will not affect the federally-listed Neosho mucket (*Lampsilis rafinesqueana)*, rabbitsfoot (*Quadrula cylindrica cylindrica*), and red knot (*Calidris canutus rufa*). Consequently, these species will not be addressed further in this consultation.

This letter also provides the Service's response with respect to whether the Federal Highway Administration may rely on the February 5, 2018, Programmatic Biological Opinion (Consultation Code 09E00000-2016-F-0001) for federally funded or approved transportation projects that may affect the federally-listed endangered Indiana bat (*Myotis sodalis*) and threatened northern long-eared bat (*Myotis septentrionalis*). Our response is based on information contained in the November 10, 2020, likely to adversely affect consistency verification request form submitted by the Oklahoma Department of Transportation and ensures compliance with section 7(a)(2) of the Act for the Project's effects to the Indiana bat and northern long-eared bat. We received your request on April 12, 2021.

Conclusion

The Federal Highway Administration has determined that the proposed Project is likely to adversely affect the Indiana bat and northern long-eared bat (Bats). The Service has reviewed the effects of the proposed Project, which includes the Federal Highway Administration's commitment to implement any applicable conservation and/or mitigation measures as indicated on the likely to adversely affect consistency verification form. We concur with this determination and confirm that the proposed Project's effects are consistent with those analyzed in the 2018 Programmatic Biological Opinion. The Service has determined that projects consistent with the conservation measures and scope of the program analyzed in the 2018 Programmatic Biological Opinion are not likely to jeopardize the continued existence of the Bats. The incidental take, as identified below, is measured in terms of the anticipated acres of tree removal, which serves as a surrogate estimate of the actual numbers of individual Bats that would be taken. In coordination with your agency and the Federal sponsoring agencies, the Service will re-evaluate this conclusion annually in light of any new pertinent information under the adaptive management provisions of the 2018 Programmatic Biological Opinion (2018 Opinion).

Incidental Take

Indiana Bat

The Service anticipates that tree removal associated with the proposed Project will cause incidental take of Indiana bats. As described in the Incidental Take Statement (Take Statement) of the 2018 Opinion, such taking will be difficult to detect. As stated above, the Service determined that it is appropriate to express the amount or extent of any incidental take anticipated from those proposed actions addressed under the 2018 Opinion through use of a surrogate measure. In this instance, the Service is using the proposed acreage of tree removal within suitable Indiana bat habitat as a surrogate for the numbers of individuals taken.

The proposed Project is anticipated to remove about 6.49 acres of trees from within 100 feet (ft) of the existing road, and 2.14 acres of trees will be removed from within the area between 100 and 300 ft from the existing road. All tree removal will comply with conservation measures outlined in the 2018 Opinion, and will occur during the inactive season for the Indiana bat. As such, the removal of 2.14 acres of trees from the area over 100 ft from an existing road is anticipated to result in adverse effects.

As defined in Table 3 of the 2018 Opinion[1] the Federal Highway Administration would use the mitigation ratio of **1:1.5** to calculate the compensatory mitigation required to offset the identified adverse impacts to the Indiana bat. Accordingly, about **3.21 acres** of mitigation would be required. Mitigation would be provided in accordance with the Service's Range-wide Indiana Bat In-lieu Fee Program Instrument established with The Conservation Fund, the program's sponsor. The purchase of species conservation credits and/or in-lieu fee contributions shall occur prior to construction of a transportation project covered under this programmatic consultation. Exceptions to this program stipulation include emergency projects that do not require a letting prior to construction. In these cases, purchase of credits and/or in-lieu fee contributions shall occur within three months of completion of the project. This timeframe allows for measuring the acres of habitat affected by the emergency project and for financial processing.

Using the mitigation requirements described above and the 2020-21 Land Use Values provided in Table 2 of Exhibit E in the Service's in-lieu fee instrument[2], the Federal Highway Administration will contribute **$14,464.26** to The Conservation Fund prior to letting the project to construction. These requirements are applicable even if project construction should occur in a different calendar year and helps ensure compliance with the program's mitigation requirements for transportation projects reviewed under the 2018 Opinion. For design/build projects, the Federal Highway Administration will provide the required payment amount to The Conservation Fund prior to construction. At the time of payment, the Federal Highway Administration shall notify the Service of compliance with the compensatory mitigation requirements described above.

The Service will add the acreage of Project-related tree removal to the annual total acreage attributed to the 2018 Opinion as a surrogate measure of Indiana bat incidental take. This take will then be exempted from the prohibitions of section 9 of the Act. Such exemption is effective as long as the Federal Highway Administration implements the reasonable and prudent measure and accompanying terms and conditions of the Take Statement from the 2018 Opinion.

The sole reasonable and prudent measure from the Take Statement of the 2018 Opinion requires the Federal Transportation Agencies to ensure that State/Local transportation agencies, who choose to include eligible projects under the 2018 Opinion, incorporate all applicable conservation measures in any project proposal submitted to the Service for section 7 compliance under the Act using the 2018 Opinion. The implementing terms and conditions for this reasonable and prudent measure require the Federal Transportation Agencies to offer training to appropriate personnel about using the 2018 Opinion, and promptly report sick, injured, or dead bats (regardless of species) or any other federally-listed species located in project action areas.

In addition, the Project may take up to five Indiana bats that were not detected during bridge bat assessments conducted prior to implementing the proposed work on the bridge over the Arkansas River. In these instances, potential incidental take of Indiana bats may be exempted provided that the take is reported to the Service on the appropriate form[3] (refer to User Guide Appendix E - Post Assessment Discovery of Bats at Bridge/Structure Form). Although such take is reasonably certain to occur at up to 10 bridge projects per year, as included in the scope of the 2018

[1] See https://www.fws.gov/midwest/endangered/section7/fhwa/pdf/IBAT_ILF_ratios_transportation_agencies.pdf
[2] See https://www.fws.gov/midwest/endangered/section7/fhwa/pdf/IBAT_ExhibitE_Table2__FeeSchedule_LandValues.pdf
[3] See https://www.fws.gov/midwest/endangered/section7/fhwa/pdf/AppE_PostAssessmentDiscoveryOfBatsFormAug2017.pdf

Opinion, incidental take is a remote possibility for any individual project that is implemented consistent with the conservation measures of the 2018 Opinion.

Northern long-eared bat

The proposed Project is anticipated to remove about 6.49 acres of trees from within 100 feet of the existing road, and 2.14 acres of trees will be removed from within the area between 100 and 300 feet from the existing road. All tree removal will comply with conservation measures outlined in the in the 2018 Opinion, and will occur during the inactive season for the northern long-eared bat. As such, the removal of 2.14 acres of trees from the area over 100 ft from an existing road is anticipated to result in adverse effects. However, because the Project is consistent with the 2018 Opinion and includes appropriate avoidance and minimization measures, this proposed Project will not cause take of the northern long-eared bat that is prohibited under the Act's section 4(d) rule for this species (50 CFR §17.40(o)). Therefore, the incidental take of the northern long-eared bat resulting from Project implementation does not require exemption from the Service.

Reporting Dead or Injured Bats

The Federal Highway Administration, its State/Local cooperators (*e.g.*, Oklahoma Department of Transportation), and any contractors must take care when handling dead or injured Bats, or any other federally-listed species that are found at the Project site to preserve biological material in the best possible condition and to protect the handler from exposure to diseases, such as rabies. Project personnel are responsible for ensuring that any evidence about determining the cause of death or injury is not unnecessarily disturbed. Reporting the discovery of dead or injured listed species is required in all cases to enable the Service to determine whether the level of incidental take exempted by this biological opinion is exceeded, and to ensure that the terms and conditions are appropriate and effective. Parties finding a dead, injured, or sick specimen of any endangered or threatened species must promptly notify this Service Office at (918) 581-7458.

Reinitiation Notice

This letter concludes consultation for this Project, which qualifies for inclusion in the 2018 Opinion issued to the Federal Transportation Agencies. To maintain this inclusion, a reinitiation of this Project-level consultation is required where the Federal Highway Administration's discretionary involvement or control over the Project has been retained (or is authorized by law) and if any of the following occur:

- the amount or extent of incidental take of the Indiana bat is exceeded; or,
- new information reveals that the Project may affect any listed species or critical habitat in a manner or to an extent not considered in the 2018 Opinion or in the Project information that supported Service concurrence with a not likely to adversely affect determination; or,
- the Project is subsequently modified in a manner that causes an effect to listed species or designated critical habitat not considered in the 2018 Opinion; or,

- a new species is listed or critical habitat designated that the Project may affect.

Per the first condition listed above, the anticipated incidental take is exceeded when:

- the Project removes trees on more than 2.14 acres of habitat suitable for the Indiana bat from within the area between 100 and 300 ft from the existing road; or

- the Project removes trees during the active season for the Indiana bat, or

- the Project takes more than 5 Indiana bats resulting from work on the bridge over Arkansas River.

In instances where the amount or extent of incidental take is exceeded, the Federal Highway Administration is required to immediately request a reinitiation of this Project-level consultation. Within 90 days prior to the start of construction, please request a current species list to determine if any changes to federally-listed species have occurred. If any changes have occurred, verify with the Service to determine whether reinitiation is required.

We appreciate your continued efforts to ensure that this Project is fully consistent with all applicable provisions of the 2018 Programmatic Biological Opinion. If you have any questions regarding our response or if you need additional information, please contact the Oklahoma Ecological Services Field Office at (918) 581-7458.

Sincerely,

KENNETH COLLINS Digitally signed by KENNETH COLLINS Date: 2021.05.14 16:29:59 -05'00'

Kenneth Collins
Acting Field Supervisor

cc: Karen Orton, FHWA, Environmental Projects Manager, Oklahoma City, OK
Amber McIntyre, (ODOT) Natural Resources Program Manager, Norman, OK
Elizabeth Nichols, (ODOT) Natural Resources Program Assistant Manager, Norman, OK

August 2015

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Division of Ecological Services
9014 East 21st Street
Tulsa, Oklahoma 74129
918/581-7458 / (FAX) 918/581-7467

4/12/2021

Online Project Review Concurrence Letter

To: Elizabeth Nichols
ODOT Natural Resources Program at OU
111 E. Chesapeake
Norman, OK 73019
405-325-6802, enichols@odot.org

Project Name: Muskogee JP 32100(04) SH-100 Bridge and Approaches over the Arkansas River at the Muskogee/Sequoyah County line

Consultation Code: 02EKOK00-2021-SLI-1166
(originally 02EKOK00-2020-SLI-0433)

Dear Applicant:

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 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 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 your office. If, after 45 days from the date of your email submittal of your project review package, the Oklahoma ESFO has not contacted your office, consider your section 7 consultation complete.**

The proposed action consists of:

Original field studies were conducted in September 2019 under IPAC 02EKOK00-2019-SLI-3026, report dated October 2020 under a new IPAC 02EKOK00-2020-SLI-0433. USFWS consultation occurred November 2020 and Concurrence January 20, 2021. The scope and footprint have changed since that consultation, under another IPAC 02EKOK00-2021-SLI-1166.

The proposed project would replace the SH-100 bridge over the Arkansas River. The existing bridge deck and the piers would be relocated within the allowances of the existing pier

Project start and completion dates:

2023 Let

Federal agency or federal program providing a permit, funding, 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

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/ Jonna Polk
Field Supervisor
Oklahoma Ecological Services Field Office

Enclosures:

1) ENTIRE PROJECT REVIEW
   - ☑ PACKAGE: Species Conclusion Table
   - ☑ IPaC Species List and Action Area map
   - ☑ This letter (Online Concurrence Letter)
   - ☑ (Optional) Additional maps
2) Other relevant project data/documents

MA Verification Letter ABB 4(d);
LAA Documentation Letter IB & NLEB FHWA PBA

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

For

USFWS TAILS #		**02EKOK00-2021-SLI-1166**			
Email used to request IPaC official species list			mcross@cpyi.com		
County	Muskogee / Sequoyah	JP Number	32100(04)	Project Number	J3-2100(004)
Road Number	SH-100	Water Body Name		Arkansas River	
ROW Date	2021	Let Date	2023	Project Length	1 mile
Project General Location		Between Gore and Webber Falls, OK			
Project Description & Statement From Oracle		SH-100 bridge and approaches over the Arkansas River at the Muskogee/Sequoyah County Line			

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

Prepared by:

Biologist Name	Melissa Cross
Company/Agency Name	CP&Y, Inc.
Address	200 N. Classen Blvd
City, State Zip	Oklahoma City, OK 73106

Report Date:	March 23, 2021
Field Survey Date	March 17, 2021
Field Survey Biologist(s)	M. Cross, K. Strickland

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 SH-100 bridge over the Arkansas River (NBI# 17611) has two 12-foot wide asphalt travel lanes with 10-foot-wide asphalt shoulders. The existing deck is approximately 44 feet in width and has a total vertical clearance of 99.99 feet (52.0 feet navigational clearance). The existing structure length is 1,928.15 feet. The existing bridge is a concrete cast-in-place bridge and consists of 3 main spans with 11 total spans. There are also bridge protection piers adjacent to the bridge piers to prevent barges colliding with the structure. The current abutments at either end of the bridge are slightly warped with visible cracks. The existing bridge is “at-risk” of becoming structurally deficient with a sufficiency rating of 66.70. The current Annual Average Daily Traffic (ADT) for 2020 was estimated at 3,700 vehicles per day (VPD), and the. 20-year projected ADT is 5,000 VPD. The project purpose is to correct a bridge that is “at-risk” of becoming structurally deficient.

Description of **proposed** improvements

The proposed project would replace the SH-100 bridge over the Arkansas River. The existing bridge deck and the piers would be relocated within the allowances of the existing pier protections. New abutments would be installed at either end of the bridge. It will be replaced with a 40 foot Clear Roadway bridge on existing alignment with no offset. The new bridge will be 1,926 feet in length and 43 feet in width (excluding guardrails). New and fewer piers will be constructed within the OHWM. The existing pier protection will remain. The proposed SH-100 roadway would have two 12-foot wide asphalt travel lanes and 8-foot wide asphalt shoulders. Work within the OHWM of the Arkansas River is anticipated. One work road on each side of the bridge will be required for work on the abutments. Existing drilled shafts within the river may be removed for construction access but would be replaced after construction is complete. The bridge will be closed during construction and local traffic will be detoured on local roadways.

Check if any of the following is expected s 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**	
Section Range & Township	Lat/Long NAD 83)	Dimensions	Acreage	Level IV Ecoregion (Woods et al. 2005)	Game Type (Duck and Fletcher 1943)
S13-T12N-R20E, S18-T12N-R21E, S7-T12N-R21E	Start: 35°30'52.80"N, 95°8'4.50"W End: 35°31'24.93"N, 95°7'15.96"W	Approximately 1 mile long and ranges from 200 feet to 600 feet wide	56.9	38b Lower Boston Mountains	Bottomland & Oak-Hickory Forest

Action Area:
The action area for this project is a 1-mile buffer around the study area as well as 1.6 miles downstream along the Arkansas River.

2. FEDERALLY LISTED SPECIES AND DESIGNATED CRITICAL HABITAT

Species Range and Occurrence Evaluation (Check √ all that apply)

Species	**IPaC[1]**	**Watershed[2]**	**Water Body[3]**	**Records[4]**
	Check if Yes	**Check if YES**	**Check if Yes**	**Check if Yes**
Red-cockaded Woodpecker	☐			☐
Whooping Crane	☒	☐		☐
Gray Bat	☒	☒		☐
Indiana Bat	☒			☐
Ozark Big-eared Bat	☒			☐
Neosho Mucket	☒	☐	☐	☐
Ouachita Rock Pocketbook	☐	☐	☐	☐
Scaleshell Mussel	☐	☐	☐	☐
Winged Mapleleaf	☐	☐	☐	☐
American Burying Beetle	☒			☒
Harperella	☐			☐
Piping Plover	☒			☐
Red Knot	☒			☐

Species	IPaC[1]	Watershed[2]	Water Body[3]	Records[4]
	Check if Yes	Check if YES	Check if Yes	Check if Yes
Northern Long-eared Bat	☒			☐
Arkansas River Shiner	☐	☐	☐	☐
Leopard Darter	☐	☐	☐	☐
Neosho Madtom	☐	☐	☐	☐
Ozark Cavefish	☐	☐		☐
American Alligator	☐			☐
Rabbitsfoot Mussel	☒	☐	☐	☐
Rattlesnake-master Borer Moth	☐			☐

[1]Species is on the Proposed Project's IPaC List
[2]Action Area is within a watershed associated with occupied water bodies
[3]Action Area includes an occupied water body
[4]Project site within 5 miles of known records

Designated or Proposed Critical Habitat	Action Area includes Designated Critical Habitat (Check √ if Yes)
Whooping Crane	☐
Arkansas River Shiner	☐
Leopard Darter	☐
Neosho Mucket	☐
Rabbitsfoot	☐

Action area is adjacent to McAlester Army Ammunition Plant or Camp Gruber/Cherokee WMA ☐

All of part of the action area is within the 10 mile **gray bat** priority area (ODOT will check) ☐
All of part of the action area is within the 2 mile **gray bat** priority area (ODOT will check) ☐

Action area is within what percentage **Whooping Crane** migratory corridor **100%**
Action area is within 15 miles of Salt Plains NWR, Hackberry Flat, or Foss Reservoir. ☐

Action area is within the historic range of the **Red-cockaded Woodpecker** ☐
Action area is within 10 miles of the McCurtain County Wilderness Area ☐
Action area is within 10 miles of the Pushmataha Wildlife Management Area ☐

3. ENVIRONMENTAL BASELINE

3.1. Ecological Processes and Conditions

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

Soil Class	Boston Mountains
Soil Name	Hector-Linker
Soil Type	Inceptisols, Entisols
Soil Characteristics	Shallow, loamy, well-drained, strongly acidic, and humus-poor; steep slopes

Climate (Use Woods et al. 2005)

Precipitation	Mean annual inches	44-51
Growing Season	Number of days	200-220
Mean Temperatures	Summer min/max	69/92
	Winter min/max	26/48

River System

The action area contains the Arkansas River, six unnamed tributaries to the Arkansas River, Dog Branch, seven unnamed tributaries to the Illinois River, and two unnamed tributaries to Dirty Creek.

Land Use and Land Ownership

From Woods et al. 2005	Mostly forest and woodland. Flatter areas are used as pastureland or hay land. Logging and recreation are important land uses.
From Field investigation	Land use within the study area consists of paved roadway and the existing bridge. Surrounding land use includes public park land, residential areas, and agricultural areas. On industrial facility was observed partially within the study area on the northwestern side of the bridge.

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

Two plant communities dominated the NEPA study footprint: riparian woodland and maintained/disturbed grassland.

- The riparian woodland mainly surrounded the Arkansas River and the park land areas at the bridge approaches. Dominant species of this vegetative community include eastern cottonwood (*Populus deltoides*), American sycamore *(Platanus occidentalis*), pecan (*Carya illnoinensis*), red oak (*Quercus rubra*), cedar elm (*Ulmus crassifolia*), and Johnsongrass (*Sorghum halapense*). On the northeastern side of the bridge only bamboo (*Phyllostachys sp.*) was the dominant understory plant.
- The maintained/disturbed community was mainly located within the existing ROW and park land located near the bridge approaches on either end of the bridge. Vegetation in this community includes Bermudagrass (*Cynodon dactylon*) and Johnsongrass.

.

The Arkansas River was observed flowing from northwest to southeast within the study area. Canada Geese (*Branta canadensis*) were observed within the study area along the banks of the river, and a Bald Eagle (*Haliaeetus leucocephalus*) was observed soaring over the project area. One ribbon snake (*Thamnophis saurita*) and two unidentified water snakes were also observed within the study area.

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	
Whooping Crane	Shallowly-submerged sandbars in large river channels occur within the **0.25 miles of the NEPA Environmental Study Footprint**.	☒
	If within the 75% migration corridor, provide the number of acres of emergent wetlands that occur within the **NEPA Environmental Study Footprint**.	N/A
	Croplands suitable for foraging occur within the **0.25 miles of the NEPA Environmental Study Footprint** and is within the 95% migration corridor.	☐
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.**	☒
	If within a cave buffer, total linear feet along ALL riparian zones within the **NEPA Environmental Study Footprint.**	N/A
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** (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	8.6 TOTAL

	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.	
	Acres of trees within 100 feet from pavement	6.49
	Acres of trees between 100- 300 feet from pavement	2.14
	Acres of trees greater than 300 feet from pavement	0
Ozark Big-eared Bat	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.**	☒
	Riparian forest near intermittent streams occurs within **0.5 mile of the NEPA Environmental Study Footprint.**	☒
Neosho Mucket Mussel	Designated occupied water bodies, or their direct tributaries, that exhibit moderate flow, clean and stable gravel and rubble substrates, and shallow water shoal and riffles, occur within **330 feet upstream and 1.6 miles downstream of the NEPA Environmental Study Footprint.**	☐
American Burying Beetle	Number of acres of native perennial plant vegetation (where native perennial vegetation is the dominant vegetation) within the **NEPA Environmental Study Footprint** (include shapefiles).	8.4
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 and mudflats associated with reservoirs occur within the **0.25 miles of the NEPA Environmental Study Footprint.**	☐
Red Knot	Mudflats associated with reservoirs occur within the **0.25 miles of the NEPA Environmental Study Footprint.**	☐
Northern Long-eared 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 >= 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.	8.6
Rabbitsfoot Mussel	Designated occupied water bodies, or their direct tributaries, that exhibit sand and gravel substrates, and moderate to swift current, occur within **330 feet upstream and 1.6 miles downstream of the NEPA Environmental Study Footprint**.	☐

NEPA Bridge & Structure Inspection Form for All Listed Bat Species –

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. **No assessment required.** ☐

BRIDGE INSPECTION: Identify ALL Bridges by NBI # (include RCB bridges)
CULVTERT INSPECTION: Identify ALL Culverts ≥4 feet in diameter within the Study Area
BARN/SHED INSPECTION: Identify ALL structures within the Study Area that potentially could be removed

Method of Inspection (check all that apply) ☒ Visual ☐ Ladder ☐ Snooper ☐ Thermal ☐ Acoustic Survey
☐ Emergence Survey (30 minutes at dusk and 1 hour after dark)

ODOT Project JP Number	County	Road Number/Name	NBI Number	Water Body (or road if over road)	Date & Time of Day of Inspection	
J/P 32100(04)	Muskogee / Sequoyah	SH-100	17611	Arkansas River	3/17/2021	1630

Bridge/Culvert Type/Structure	Bat Indicators: Check all that apply Note: Presence of at least one of these indicators is sufficient evidence that bats are using the structure.						Structure Characteristics: Check all that apply			
	Live or Dead Bats Seen		Guano	Staining	Sounds	Odor	Concrete or stone structure with vertical crevices	Top sealed expansion joints	Structure ≥4 feet above ground or water	Box structure 5 to 10 feet tall & > 300 feet long
Concrete Span	☐	Number seen	☐	☐	☐	☐	☒	☒	☒	☐
	Photo Documentation of the above Y/N						Photo Documentation of each of the above Y/N			
	No		No	No			Yes	No	Yes	No

For the bridge/culvert/structure listed above:

Possible Corridors for Netting			Light Levels under the Bridge			Human Disturbance or Traffic under the Bridge			Project Actions Include: check all that apply			
None/ poor	Marginal	Excellent	Bright	Low	Cave-like	High	Low	None	Demolish/extend or Below Deck	Surface & Percussive/ Loud	No work above or below	Not known
☒	☐	☐	☒	☐	☐	☐	☒	☐	☒	☒	☐	☐

Characteristics of the above Bridge/Culvert/Structure and Whether FULLY Inspected during Field Studies (Check all that apply)

BRIDGES (this includes any RCBs with an NBI #)	**Present**	**Inspected**	**Not Present**	**CULVERTS (do not include bridge-size culverts)**	**Present**	**Inspected**	**Not Present**
All vertical crevices sealed at the top	☒	☐	☐	Crevices, rough surfaces or impactions	☐	☐	☐
All crevices not sealed	☐	☐	☒	Spaces between concrete or stone end walls and span	☐	☐	☐
All guardrails	☒	☐	☐	All guardrails	☐	☐	☐
All expansion joints	☒	☐	☐	**BARN/SHED STRUCTURE**	**Present**	**Inspected**	**Not Present**
Spaces between concrete end walls and the bridge deck	☒	☐	☐	Crevices, rough surfaces or impactions	☐	☐	☐
Crevices, rough surfaces or impactions in concrete or stone	☐	☐	☐	Spaces between walls, ceiling joists	☐	☐	☐
Vertical surfaces on concrete I- beams	☐	☐	☐	Cracked or exposed beams	☐	☐	☐

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 to thoroughly inspect interior due to conditions limiting access, and explained in the Notes

NOTES: Close inspection of all joints, vertical surfaces, and cervices was limited due to height and length of bridge and traffic. The majority of the crevices could not be seen from the banks of the Arkansas River. No evidence of bats using the structures was observed during the field investigations for the portions of the bridge that could be seen. Swallow nests that could be utilized by the bats were present along the bridge.

4. ANALYSIS OF EFFECTS

4.1 Direct Effects

Species/ Resource	Habitat impacts expected from project activities	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. If habitat within the action area identified above will not be impacted, describe why.
American Burying Beetle	☒	Approximately 8.4 acres of native perennially vegetated areas are located within the study area. Vegetation removal required for the work roads would be a temporary impact by removing potential reproductive and foraging habitat for the ABB during construction activities. Vegetation removal would also be a permanent impact in that the amount of woody vegetation within the study area would decrease after completion of the project. Soil disturbance that would occur during the removal of vegetation could potentially cause "take" of this species if any individuals are nesting or present within the study area at the time of the soil disturbance. This would be a temporary impact as all areas would revert back to current cover.
Whooping Crane	☒	Potential wading/foraging habitat for this species exists within the study area and within 0.25 miles of the study area. Open agricultural fields exist immediately adjacent to the study area and limited shallow sandbars in the Arkansas River exist within study area and within 0.25 miles of the study area. Temporary impacts to water quality would impact wading grounds for the Whooping Crane downstream from the project. Water quality would return to pre-construction conditions after completion of the project. No direct impacts are anticipated to the sand bar within the study area. The project is outside where 95% of the population migrate through the state.
Piping Plover	☒	Potential habitat for this species exists along limited sandbars in the Arkansas River within the study area and within 0.25 miles of the study area. No direct impacts are anticipated to the sand bars in the vicinity of the project. Temporary impacts to water quality would impact wading grounds for the Piping Plover downstream from the project. Water quality would return to pre-construction conditions after completion of the project.

Gray Bat	☒	Riparian and mature woodlands occur within the action area. Permanent impacts would be a result of any tree removal as this would decrease the overall riparian habitat for foraging bats in the area. Temporary impacts to water quality with increased turbidity could impact the availability of aquatic invertebrates bats are feeding on.
Indiana Bat	☒	There are approximately 8.6 acres of potential Indiana Bat habitat within the project area. The woody vegetation removal necessary for the widening of the roadway to replace the bridge and the work roads could cause both temporary and permanent impacts to wooded foraging and roosting habitat. Permanent impacts from tree clearing would directly reduce foraging and potential maternity roosting habitat within the study area through the removal of large tree snags and developed riparian woodland. Temporary impacts would include the increase in noise during construction and the increase in human presence that may disturb the bats and impacts to water quality affecting prey species.
Northern Long-eared Bat	☒	It is possible for this species to be roosting within trees that may be removed from the study area. The woody vegetation removal necessary for the widening of the roadway to replace the bridge and the work roads could cause both temporary and permanent impacts to wooded foraging and roosting habitat. The removal of any large trees with cavities or shaggy bark could provide suitable maternity roost habitat, with removal or disturbance impacting the reproductive viability of those individuals. Temporary impacts would include the increase in noise during construction and the increase in human presence that may disturb the bats and impacts to water quality affecting prey species. Removal of the existing bridge could potentially displace roosting bats and reduce overall roosting habitat for the species within the study area for the duration of the project. The new bridge would likely produce similar roosting characteristics as the existing structure.
Ozark Big-eared Bat	☒	Riparian and mature woodlands and perennial streams are present within the action area. Removal of the mature trees could permanently impact this species by removing overall habitat for the bat in this area. Temporary impacts would include the increase in noise and in human presence that may disturb roosting bats and impacts to water quality affecting prey species.

4.2 Indirect Effects

Long-term habitat alterations

Species/ Resource	Identify long-term, permanent changes in habitat
American Burying Beetle	Bridge and approaches construction would lead to a permanent conversion of a small amount of ABB habitat into maintained ROW.
Whooping Crane	Primary impacts expected to be temporary water quality degradation.
Piping Plover	Primary impacts expected to be temporary water quality degradation.
Gray Bat	Tree removal to improve approaches in the existing alignment will be a permanent conversion of riparian foraging and roosting habitat.
Indiana Bat	Tree removal to improve approaches in the existing alignment will be a permanent conversion of riparian foraging and roosting habitat.
Northern Long-eared Bat	Tree removal to improve approaches in the existing alignment will be a permanent conversion of riparian foraging and roosting habitat. The new bridge would likely provide suitable roosting characteristics equivalent or better than the existing structure.
Ozark Big-eared Bat	Tree removal to improve approaches in the existing alignment will be a permanent conversion of riparian foraging and roosting habitat.

Indirect land use impacts

Removing habitat in the project vicinity would convert native perennial vegetation to maintained ROW. The project would still be considered rural after completion of the project; therefore, no changes to overall land use would occur as a result of the proposed project.

4.3 Interrelated and Interdependent Actions and Activities

The proposed project does not involve capacity expansion and will not impact the current land use in the area. Utilities may be relocated as a result of the wider structure. The project would require temporary detours along local roadways during the duration of construction activities.

USFWS TAILS Number:	**02EKOK00-2021-SLI-1166**
ODOT Project JP Number:	**32100(04)**

SPECIES / DESIGNATED CRITICAL HABIT	**CONCLUSION**		**ESA SECTION 7**			**NOTES AND DOCUMENTATION Check √ all that apply**			
	Species Habitat present within the action area	Project Activities expected to impact habitat	No Effect	May affect, not likely to adversely affect	May affect, Likely to adversely affect	Field Studies	ONHI database / ABB	USFWS occupied waterbodies & watersheds	Whooping Crane Migration Corridor
American Burying Beetle	☒	☒	☐	☒	Project uses the BO for the final 4(d) rule	☒	☒	☐	☐
Indiana bat	☒	☒	☐	☒	Final Effect Analysis and Determination covered in the Programmatic BA&BO	☒	☐	☐	☐
				☐	Individual May Affect, unlikely to adversely affect				
				☐	Individual May Affect, likely to adversely affect				
Northern long-eared bat	☒	☒	☐	☒	Final Effect Analysis and Determination covered in the Programmatic BA&BO	☒	☐	☐	☐
				☐	Project uses the BO for the final 4(d) rule				
Gray Bat	☒	☒	☐	☒	☐	☒	☐	☒	☐
Ozark Big-eared Bat	☒	☒	☐	☒	☐	☒	☐	☐	☐

SPECIES / DESIGNATED CRITICAL HABIT	CONCLUSION		ESA SECTION 7			NOTES AND DOCUMENTATION Check √ all that apply			
	Species Habitat present within the action area	Project Activities expected to impact habitat	No Effect	May affect, not likely to adversely affect	May affect, Likely to adversely affect	Field Studies	ONHI database / ABB	USFWS occupied waterbodies & watersheds	Whooping Crane Migration Corridor
Whooping Crane	☒	☒	☐	☒	☐	☒	☐	☐	☒
Piping Plover	☒	☒	☐	☒	☐	☒	☐	☐	☐
Red Knot	☐	☐	☒	☐	☐	☒	☐	☐	☐
Neosho Mucket	☐	☐	☒	☐	☐	☒	☐	☐	☐
Rabbitsfoot Mussel	☐	☐	☒	☐	☐	☒	☐	☐	☐

CONCLUSIONS

No Effect	Neosho Mucket, Rabbitsfoot Mussel, Red Knot
May affect, not likely to adversely affect	Whooping Crane, Piping Plover, Gray Bat, Ozark Big-eared Bat
May affect, likely to adversely affect	American Burying Beetle, Indiana Bat, Northern Long-eared Bat
Not likely to jeopardize the continued existence of the species – Candidate species only	N/A
Appropriate Effect Determination has been made for the ABB in the Programmatic BA & BO	☒
Appropriate Effect Determination has been made under the FHWA NLEB/Ibat Programmatic BA & BO	☒
Appropriate Effect Determination for NLEB has been made under the BO for the final 4(d) rule	☐

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:

a) The areas of suitable habitat will be field mapped.
b) The amount of ground disturbance to suitable ABB habitat within the construction footprint will be minimized to only what is necessary for project construction.
c) 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.
d) Pollution Prevention Requirements as specified by the Oklahoma Department of Environmental Quality General Permit OKRl0 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.
e) 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.
f) Carcasses and trash will continuously be removed from any permanent and temporary construction rights-of-way, throughout the duration of the project.

If **bridge demolition, repair, retrofit, maintenance or rehabilitation** is to occur during listed bat species' active/maternity season (between April 1 and November 15), 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 16 and March 31. If bridge demolition, repair, retrofit, maintenance, and/or rehabilitation must occur between April

1 and November 15, 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 the **Indiana bats** was observed during field studies within the immediate vicinity of the proposed project. If tree removal must occur, ODOT Environmental Programs Division will conduct an acoustic survey to detect the presence of the Indiana bats, within five years prior to construction. All presence/absence surveys must be scheduled between May 15 – August 15. Results of the survey will be submitted to USFWS for review. If the survey is positive for Indiana bat, removal of suitable roost trees will be permitted only between August 1 and April 30, outside the bats pupping season. In addition, ODOT Environmental Programs Division will reconsult with USFWS to mitigate adverse impacts in advance of any tree clearing, including clearing for utility relocation.

Potential impacts to water quality affecting the 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 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 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 (April 1 – November 15). 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.

If **Whooping Cranes** are seen at or within one mile of the proposed work site, the Resident Engineer shall immediately contact the ODOT Biologist. The location and time a Whooping Crane was seen shall be recorded and provided to the ODOT Biologist. If there is a confirmed sighting and/or Whooping Cranes are observed within one mile of the proposed work site, all construction activities shall cease until it is determined that Whooping Cranes have left the project vicinity without being harassed. An 8x10 photograph of the Whooping Crane along with a written description of the bird, as well as ODOT contact information, shall be posted at the construction site at all times.

5. BALD EAGLE AND SWALLOW 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	☒	☒	There are several examples of large cottonwoods and sycamores suitable for nesting within the NEPA footprint and the 660 foot buffer.
Open foraging areas with large trees	☒	☒	Agricultural land and open parkland for foraging was observed within the NEPA footprint and within the 660 foot buffer. Additionally, the riparian areas along the Arkansas River provide edge habitat within and surrounding the existing ROW.
Distance to closest perennial water body	River or Lake	w/in	The Arkansas River is located within the study area. The Illinois River (perennial river) is 1.5 miles east of the NEPA footprint.
	Stream or Pond	1.5 mi	
Potential Bald Eagle Nests Observed	☐	☐	No nests were observed. However, there are known nests in the immediate area and one within the 660-ft buffer.
Bald Eagles Observed in the general vicinity	☒	☐	One adult Bald Eagle was observed soaring over the study area on the northern side of the bridge.
General Description of Bald Eagle Nesting Habitat and Impact Determination, within the NEPA Footprint and within 660-ft of the NEPA Footprint	The large sycamores and cottonwood trees observed within the NEPA footprint and 660ft buffer provide suitable nesting habitat for Bald Eagles. Several significant ponds as well as the Arkansas River provide edge habitat and riparian habitat suitable for Bald Eagle foraging. While limited vegetation clearing is anticipated as a result of project implementation, and new nest formation within 660 feet of the project area may have reduced reproductive viability due to decreased prey availability within the project buffer area as well as increased human disturbance from construction activities.		
Station #s for Buffered Bald Eagle Habitat	Full extent of the project area		

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 ALL structures including pipe culverts and whether positive or negative for migratory birds (identify named streams where possible rather than just FS#). Provide shapefiles and map of structures identifying pos/neg swallow structures.	Approx. Number of Cliff Swallow Nests	Approx. Number of Barn Swallow Nests	Approx. Number of Eastern Phoebe Nests
SH-100 Bridge (NBI# 17611)	>100	0	0
Other MB and Nests Observed	No other nests were observed.		
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

Species Identified on IPaC list	Breeding Season
American Kestrel	Apr 1 – Aug 31
The American Kestrel prefers open habitat with short ground vegetation and few trees and can be found in meadows, parks, farm fields, and suburbs. Minimal parkland habitats are found within the NEPA study area, but farm fields and suburban habitats are present in adjacent fields and along the study area border. No direct impacts to kestrel habitat is anticipated.	

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 is an occupied waterbody for this species. Potential foraging and nesting habitat for this species exists the study area and within 0.25 miles of the study area. Small shallow exposed gravely and sand bars are present within the study area. Currently, these are very marginal habitat (small and some vegetation) and the river hydrologically is not suitable for the formation of large exposed sandbars due to the volume and defined banks and location between the Robert	

S. Kerr Reservoir downstream and the Webber Falls Reservoir upstream. However, during dry years, these sandbars could become exposed and more suitable for nesting and/or foraging. Work within the OHWM will occur. Work within the river to construct the new piers could impact habitat upstream by altering hydrology. In addition, the use of cranes, barges and heavy machinery, as well as the construction of works roads, could temporarily impact cranes in the area. Construction noise and equipment movement may temporarily cause individuals to avoid these potential foraging areas. Temporary impacts to water quality would impact wading grounds for the Interior Least Tern for the duration of construction activities.
Interior Least Terns are protected under the Migratory Bird Treaty Act. In order to avoid impacts to Interior Least Terns, any activities that may destroy active nests, eggs or birds shall be completed between September 1 and April 30, outside the nesting season. If construction activities will occur during the active nesting season, a 0.25 mile no-work-zone buffer from the Ordinary High Water Mark of the River will be established until the nesting survey can be completed. Any Interior Least Terns nesting in the area must be protected by limiting all work within 0.25 miles of any nesting colonies until after September 1 and be completed by April 30, the following year.

7. REFERENCES:

Carter and Gregory. Soil Map of Oklahoma. 2008.

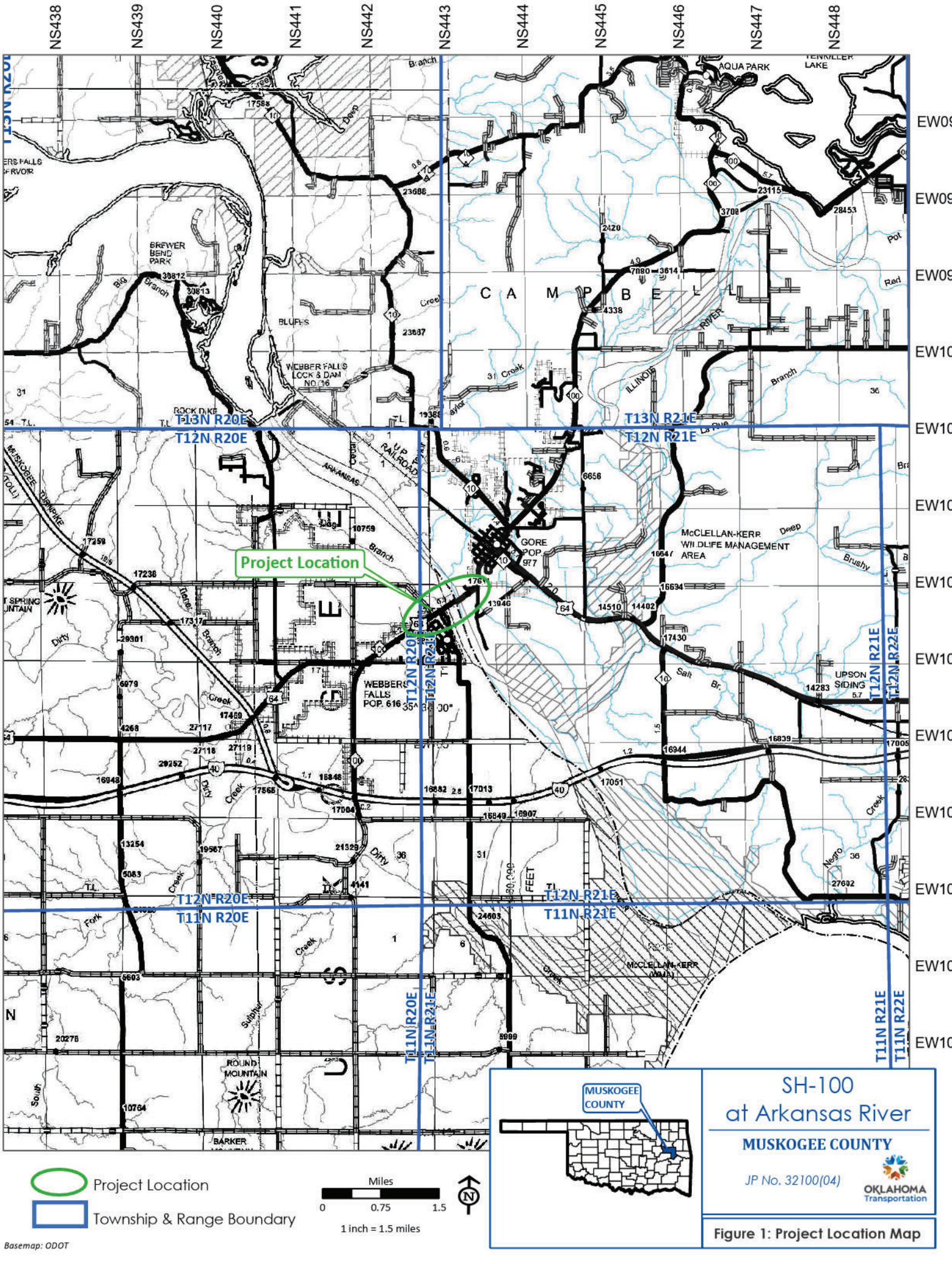
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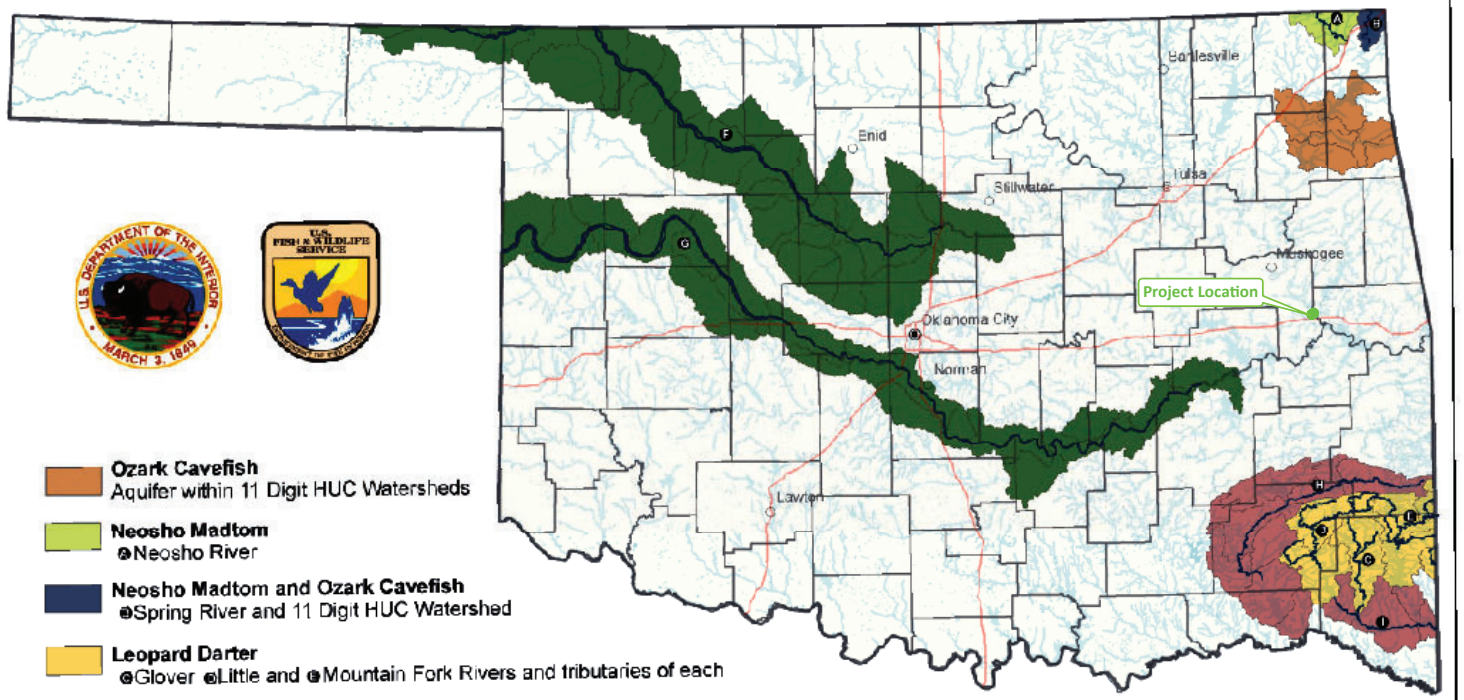
7. FIGURES


NS438
NS439
NS440
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EW097
EW098
EW099
EW100
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EW102
EW103
EW104
EW105
EW106
EW107
EW108
EW109
Project Location
T13N R20E
T12N R20E
T13N R21E
T12N R21E
T12N R22E
T11N R20E
T11N R21E
T11N R22E
WEBBERS FALLS POP. 616
GORE POP. 877
UPSON SIDING
McCLELLAN-KERR WILDLIFE MANAGEMENT AREA
AQUA PARK
BREWER BEND PARK
BLUFFS
WEBBER FALLS LOCK & DAM NO. 16
ROCK DIKE
ROUND MOUNTAIN
BARKER
ARKANSAS RIVER
ILLINOIS RIVER
Project Location
Township & Range Boundary
Miles
0
0.75
1.5
1 inch = 1.5 miles
Basemap: ODOT
MUSKOGEE COUNTY
SH-100
at Arkansas River
MUSKOGEE COUNTY
JP No. 32100(04)
OKLAHOMA Transportation
Figure 1: Project Location Map


Arkansas River
Cedar Creek
Taylor Creek
Dog Branch
LaRue Branch
SEQUOYAH CO
Deep Branch
MUSKOGEE CO
Salt Branch
Tiner Branch
Dirty Creek
Illinois River
10
64
100
CHEROKEE CO
MUSKOGEE CO
SEQUOYAH CO
MCINTOSH CO
HASKELL CO
Project Location
Source: ESRI World Imagery
Creek or River (NHD)
NEPA Study Area
Action Area
County Boundary
0 1,000 2,000
Feet
1 inch = 2,000 feet
SH 100
Over Arkansas River
Bridge Replacement
Muskogee County
MUSKOGEE COUNTY
JP No. 32100(04)
Project No. J3-2100(004)
OKLAHOMA Transportation
Figure 2: Action Area Map

Federally-Listed Aquatic Species Watersheds of Oklahoma

These watersheds were delineated using 11 digit Hydrologic Unit Code (HUC) watersheds. All watersheds adjacent to water bodies occupied by federally-listed species are included in the delineation, as well as those 11 digit HUC watersheds within 10 miles of the occupied water body. Please note that not all 11 digit HUC watersheds that feed into sensitive occupied water bodies are included in this delineation and effects to those watersheds outside of this delineation could impact sensitive water bodies.



Ozark Cavefish
Aquifer within 11 Digit HUC Watersheds

Neosho Madtom
Neosho River

Neosho Madtom and Ozark Cavefish
Spring River and 11 Digit HUC Watershed

Leopard Darter
Glover Little and Mountain Fork Rivers and tributaries of each

Arkansas River Shiner
Cimarron and Canadian Rivers

Ouachita Rock Pocketbook, Scaleshell, and Winged Mapleleaf
Kiamichi and Little Rivers

Water Bodies Occupied by Federally-Listed Species

USFWS - Oklahoma Ecological Services Field Office - April 2010

Project Location

0 12.5 25 50
Miles
1 inch = 42 Miles

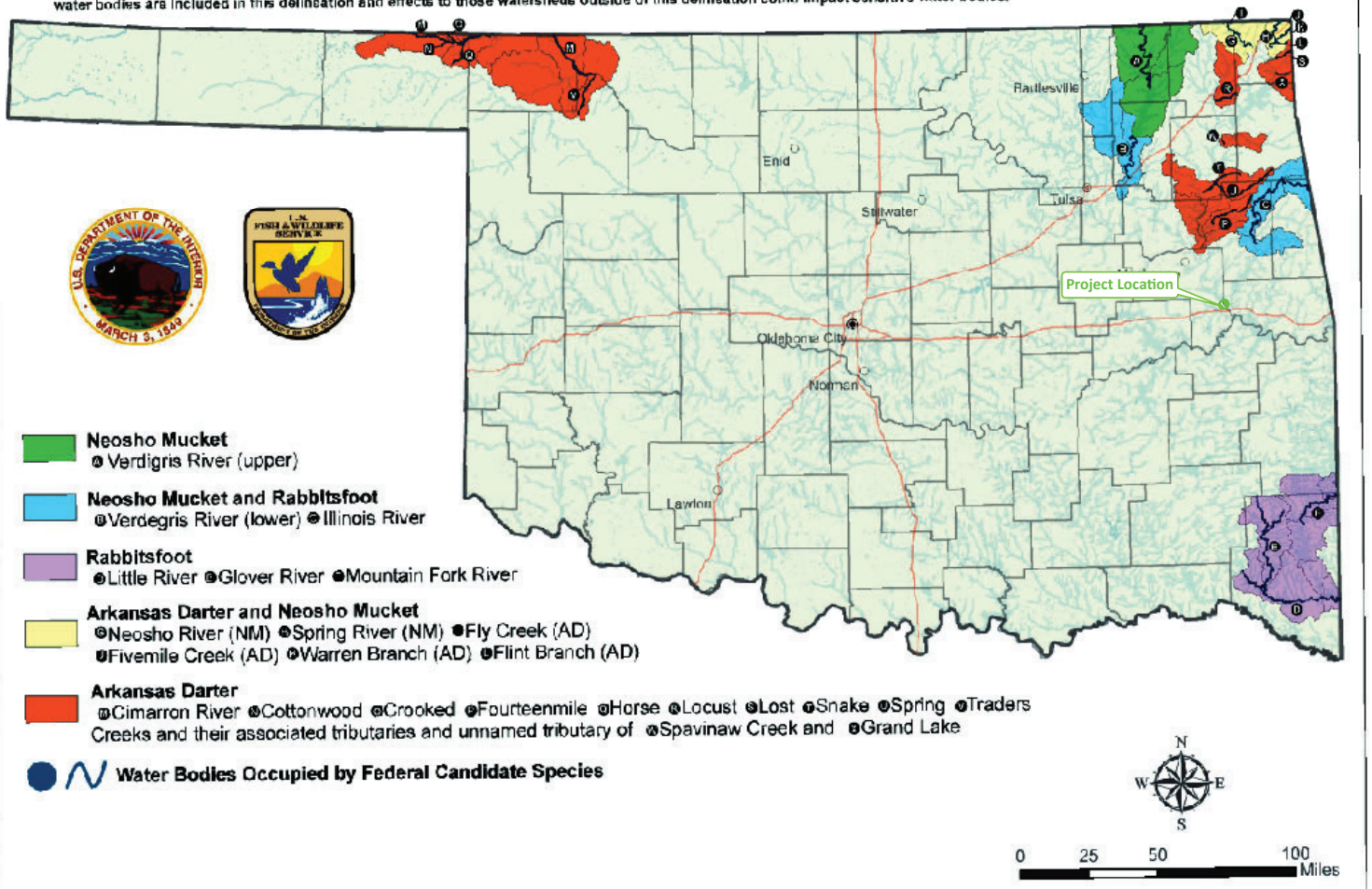
SH 100
Over Arkansas River
Bridge Replacement
Muskogee County

MUSKOGEE COUNTY
JP No. 32100(04)
Project No. J3-2100(004)
OKLAHOMA Transportation

Figure 3a

Federal Candidate Aquatic Species Watersheds of Oklahoma

These watersheds were delineated using 11 digit Hydrologic Unit Code (HUC) watersheds. All watersheds adjacent to water bodies occupied by federal candidate species are included in the delineation, as well as those 11 digit HUC watersheds within 10 miles of the occupied water body. Please note that not all 11 digit HUC watersheds that feed into sensitive occupied water bodies are included in this delineation and effects to those watersheds outside of this delineation could impact sensitive water bodies.



USFWS - Oklahoma Ecological Services Field Office - April 2010

SH 100
Over Arkansas River
Bridge Replacement
Muskogee County

MUSKOGEE COUNTY
JP No. 32100(04)
Project No. J3-2100(004)
OKLAHOMA Transportation

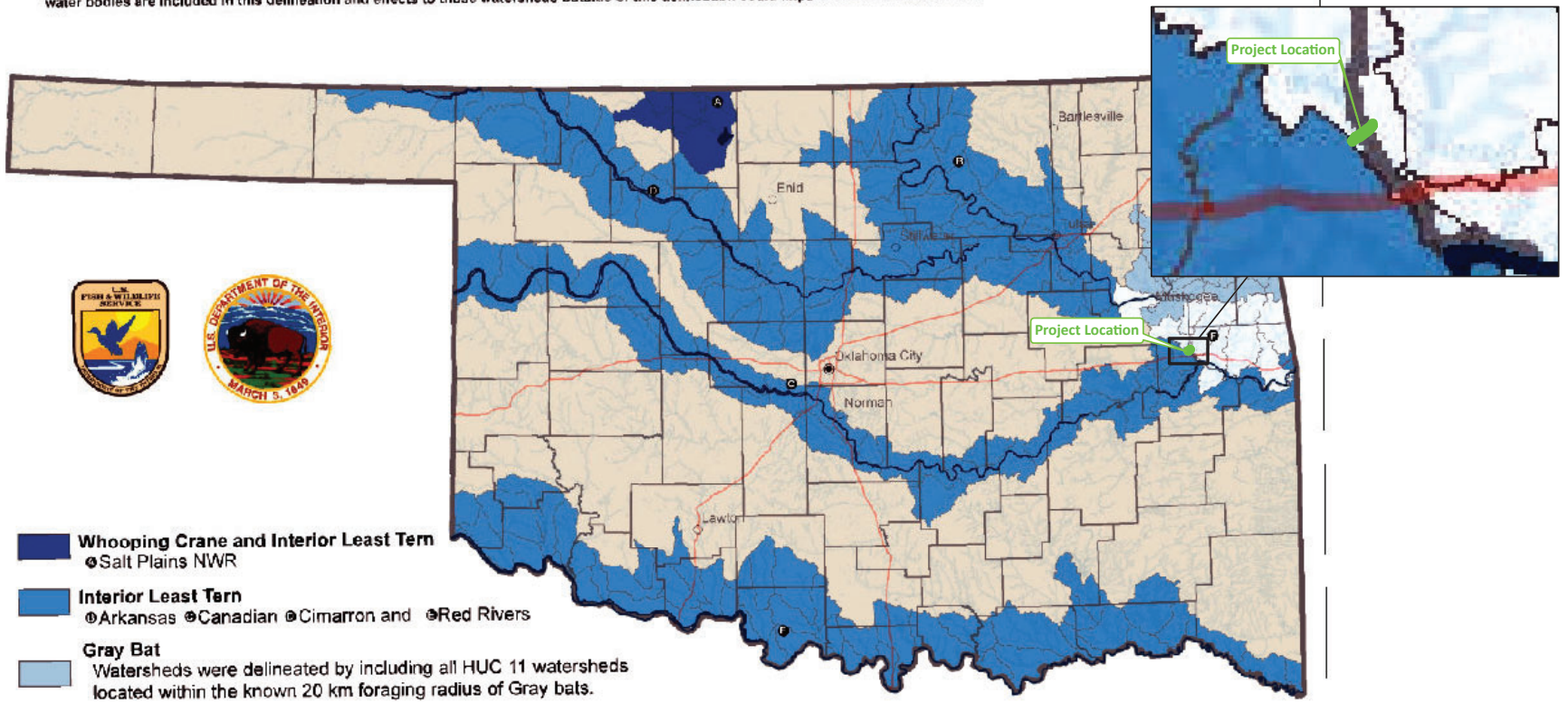
Figure 3b

Project Location

0 12.5 25 50
Miles
1 inch = 42 Miles

Federally-Listed Aquatic Dependent Species Watersheds of Oklahoma

These watersheds were delineated using 11 digit Hydrologic Unit Code (HUC) watersheds. All watersheds adjacent to water bodies occupied by federally-listed species are included in the delineation, as well as those 11 digit HUC watersheds within 10 miles of the occupied water body. Please note that not all 11 digit HUC watersheds that feed into sensitive occupied water bodies are included in this delineation and effects to those watersheds outside of this delineation could impact sensitive water bodies.



USFWS - Oklahoma Ecological Services Field Office - April 2011

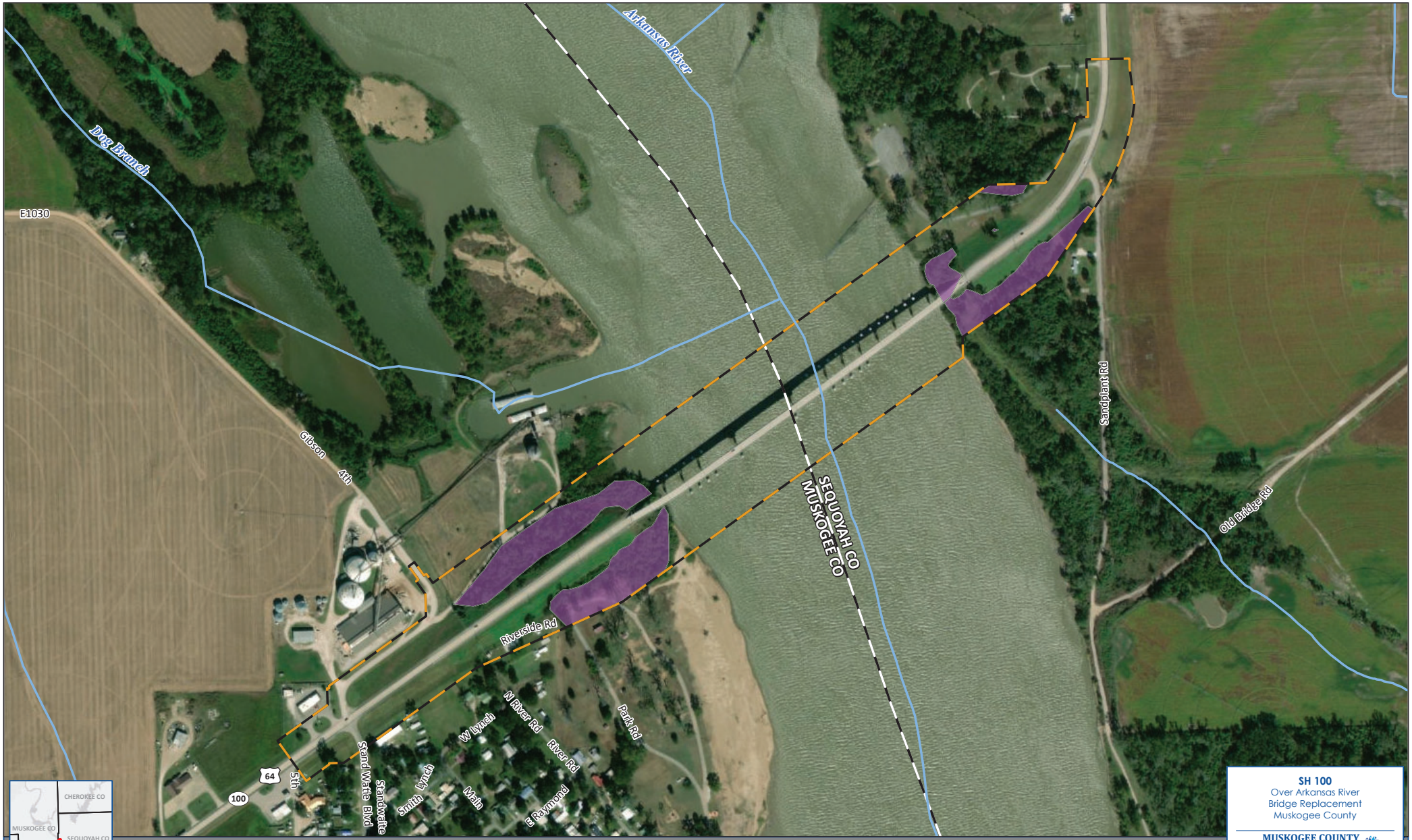
SH 100
Over Arkansas River
Bridge Replacement
Muskogee County

MUSKOGEE COUNTY
JP No. 32100(04)
Project No. J3-2100(004)
OKLAHOMA Transportation

Figure 3c

Project Location

0 12.5 25 50
Miles
1 inch = 42 Miles



SH 100
Over Arkansas River
Bridge Replacement
Muskogee County

MUSKOGEE COUNTY
JP No. 32100(04)
Project No. J3-2100(004)
OKLAHOMA Transportation

Figure 4: Bat Habitat


Arkansas River
Cedar Creek
Taylor Creek
Dog Branch
LaRue Branch
SEQUOYAH CO
MUSKOGEE CO
Deep Branch
Salt Branch
Illinois River
Tyner Branch
Dirty Creek
10
64
100
CHEROKEE CO
MUSKOGEE CO
SEQUOYAH CO
MCINTOSH CO
HASKELL CO
Project Location
Source: ESRI World Imagery
Creek or River (NHD)
NEPA Study Area
1 Mile Buffer
County Boundary
0 1,000 2,000
Feet
1 inch = 2,000 feet
SH 100
Over Arkansas River
Bridge Replacement
Muskogee County
MUSKOGEE COUNTY
JP No. 32100(04)
Project No. J3-2100(004)
OKLAHOMA Transportation
Figure 5: 1 Mile Buffer Map



SH 100
Over Arkansas River
Bridge Replacement
Muskogee County

MUSKOGEE COUNTY
JP No. 32100(04)
Project No. J3-2100(004)
OKLAHOMA Transportation

Figure 6: ABB Map


Arkansas River
Dog Branch
E1030
NBI#: 17611,
100+ Nests observed
Gibson
4th
SEQUOYAH CO
MUSKOGEE CO
Sandplant Rd
Old Bridge Rd
Riverside Rd
W Lynch
N River Rd
River Rd
Park Rd
64
100
5th
Stand Waite Blvd
Standwaite
Lynch
Smith
Main
E Raymond
CHEROKEE CO
MUSKOGEE CO
SEQUOYAH CO
MCINTOSH CO
HASKELL CO
Project Location
Source: ESRI World Imagery
Creek or River (NHD)
NEPA Study Area
County Boundary
0
200
400
Feet
1 inch = 400 feet
SH 100
Over Arkansas River
Bridge Replacement
Muskogee County
MUSKOGEE COUNTY
JP No. 32100(04)
Project No. J3-2100(004)
OKLAHOMA Transportation
Figure 7: Nest Locations


Arkansas River
Dog Branch
E1030
Gibson
4th
Riverside Rd
Stand Watie Blvd
Standwaite
W Lynch
N River Rd
River Rd
Park Rd
Lynch
Smith
Main
E Raymond
5th
64
100
SEQUOYAH CO
MUSKOGEE CO
Sandplant Rd
Old Bridge Rd
1
2
3
4
5
6
7
8
CHEROKEE CO
MUSKOGEE CO
SEQUOYAH CO
MCINTOSH CO
HASKELL CO
Project Location
Source: ESRI World Imagery
Photo Location
Creek or River (NHD)
NEPA Study Area
County Boundary
N
0
200
400
Feet
1 inch = 400 feet
SH 100
Over Arkansas River
Bridge Replacement
Muskogee County
MUSKOGEE COUNTY
JP No. 32100(04)
Project No. J3-2100(004)
OKLAHOMA Transportation
Figure 8: Photo Locations



Photograph 1: A north-east facing view from the southern extent of the study area.



Photograph 2: A northeast-facing view of the Arkansas River and SH-100 bridge.



Photograph 3: A view of the dozens of swallow nests observed beneath the bridge.



Photograph 4: A view of a wooded riparian woodlands located on the roadside slopes on the southern side of the bridge.



Photograph 5: A view of a wetland located within the study area.



Photograph 6: A view looking west from the study area at potential eagle nesting trees. One eagle was observed flying over the study area.



Photograph 7: A southwest-facing view of the Arkansas River and SH-100 bridge.



Photograph 8: A south-facing view from the northern extent of the study area.

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
http://www.fws.gov/southwest/es/Oklahoma/

In Reply Refer To: March 16, 2021
Consultation Code: 02EKOK00-2021-SLI-1166
Event Code: 02EKOK00-2021-E-02984
Project Name: SH100 over Arkansas River

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 ECOS-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 ECOS-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:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Non-federal entities conducting activities that may result in take of listed species should consider seeking coverage under section 10 of the ESA, either through development of a Habitat Conservation Plan (HCP) or, by becoming a signatory to the General Conservation Plan (GCP) currently under development for the American burying beetle. Each of these mechanisms provides the means for obtaining a permit and coverage for incidental take of listed species during otherwise lawful activities.

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

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 Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit through our Project Review step-wise process http://www.fws.gov/southwest/es/oklahoma/OKESFO%20Permit%20Home.htm.

Attachment(s):

- Official Species List

- USFWS National Wildlife Refuges and Fish Hatcheries
- 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

Consultation Code: 02EKOK00-2021-SLI-1166
Event Code: 02EKOK00-2021-E-02984
Project Name: SH100 over Arkansas River
Project Type: TRANSPORTATION
Project Description: Bridge and approaches replacement project of SH-100 over the Arkansas River located near Grove, Oklahoma in Muskogee County

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@35.51694165,-95.12853052580647,14z



Counties: Muskogee and Sequoyah counties, Oklahoma

Endangered Species Act Species

There is a total of 10 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 Fisheries[1], 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 *Myotis grisescens* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6329	Endangered
Indiana Bat *Myotis sodalis* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened
Ozark Big-eared Bat *Corynorhinus (=Plecotus) townsendii ingens* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7245	Endangered

Birds

NAME	STATUS
Piping Plover *Charadrius melodus* 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. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/6039	Threatened
Red Knot *Calidris canutus rufa* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened
Whooping Crane *Grus americana* Population: Wherever found, except where listed as an experimental population There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/758	Endangered

Clams

NAME	STATUS
Neosho Mucket *Lampsilis rafinesqueana* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/3788	Endangered
Rabbitsfoot *Quadrula cylindrica cylindrica* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/5165	Threatened

Insects

NAME	STATUS
American Burying Beetle *Nicrophorus americanus* 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

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

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.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

---

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)

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Kestrel *Falco sparverius paulus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Apr 1 to Aug 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 and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

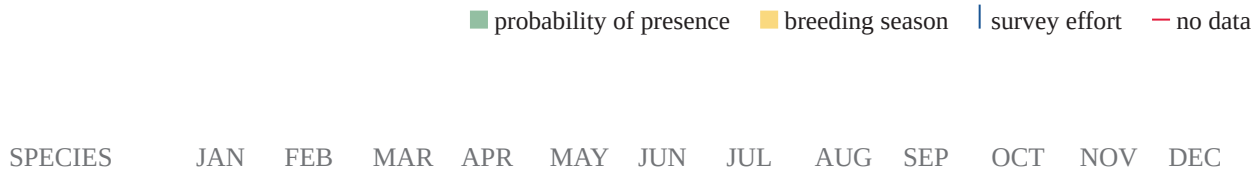
1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

Migratory Birds FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?
To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?
Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects
For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?
If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report
The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

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

- L2USCh
- L1UBHh

FRESHWATER EMERGENT WETLAND

- PEM1C
- PEM1F

FRESHWATER FORESTED/SHRUB WETLAND

- PFO/EM1A
- PFO1Ah
- PFO1C
- PFO1Ch
- PSS/EM1C
- PSS1Ch

FRESHWATER POND

- PUBF
- PUBHh
- PUBHx

RIVERINE

- R4SBC
- R5UBF

OBS Ref. 2021-199-BUS-CPY

Dear Ms. Cross, Mar. 24, 2021

We have reviewed occurrence information on federal and state threatened, endangered or candidate species, as well as non-regulatory rare species and ecological systems of importance currently in the Oklahoma Natural Heritage Inventory database for the following location you provided:

Sec. 13-T12N-R20E and Sec. 18-T12N-R21E, Muskogee County and Sec. 7 and 18-T20N-R21E, Sequoyah County

We found 5 occurrence(s) of relevant species within the vicinity of the project location as described.

Species Name	Common Name	Federal Status
Nicrophorus americanus	**American burying beetle**	**Threatened**
County	***TRS***	***Count***
Muskogee	Sec. 5-T11N-R21E	1
Muskogee	Sec. 2-T12N-R20E	1
Muskogee	Sec. 25-T13N-R20E	1
Muskogee	Sec. 35-T13N-R20E	1
Muskogee	Sec. 3-T12N-R20E	1
Sequoyah	Sec. 3-T12N-R21E	1
Sequoyah	Sec. 9-T12N-R21E	1
Sequoyah	Sec. 21-T12N-R21E	1
Sequoyah	Sec. 28-T12N-R21E	1
Sequoyah	Sec. 31-T13N-R21E	2
Sequoyah	Sec. 32-T13N-R21E	1
Noturus placidus	**Neosho madtom**	**Threatened**
County	***TRS***	***Count***
Sequoyah	Sec. 16-T12N-R21E	2
Macrhybopsis tetranema	**Arkansas River Speckled Chub**	**Proposed Endangered**
County	***TRS***	***Count***
Sequoyah	Sec. 16-T12N-R21E	1
Haliaeetus leucocephalus	**Bald Eagle**	**Protected**
County	***TRS***	***Count***
Muskogee	Sec. 2-T12N-R20E	4
Muskogee	Sec. 27-T12N-R20E	3
Sequoyah	Sec. 3-T12N-R21E	1
Sequoyah	Sec. 16-T12N-R21E	1
Sequoyah	Sec. 17-T12N-R21E	1
Sequoyah	Sec. 18-T12N-R21E	1
Sequoyah	Sec. 20-T12N-R21E	1
Sequoyah	Sec. 21-T12N-R21E	1
Sequoyah	Sec. 28-T12N-R21E	1

Additionally, absence from our database does not preclude such species from occurring in the area.

If you have any questions about this response, please send me an email, or call us at the number given below.

Although not specific to your project, you may find the following links helpful.

ONHI, guide to ranking codes for endangered and threatened species:
http://www.oknaturalheritage.ou.edu/content/biodiversity-info/ranking-guide/

Information regarding the Oklahoma Natural Areas Registry:
https://okregistry.wordpress.com/

Todd Fagin
Oklahoma Natural Heritage Inventory
(405) 325-4700
tfagin@ou.edu



PLAN

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

S.H.100/U.S.64 OVER McCLELLAN-KERR ARKANSAS RIVER NAVIGATION WATERWAY

MUSKOGEE CO.
SEQUOYAH CO.

WORK ROAD EXHIBIT

Design | Detail | Check

WHITE ENGINEERING ASSOCIATES

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 32100(04) | SHEET NO.

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PROPOSED R/W
FEBRUARY 2021



PLAN

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

S.H.100/U.S.64 OVER McCLELLAN-KERR ARKANSAS RIVER NAVIGATION WATERWAY
MUSKOGEE CO.
SEQUOYAH CO.

WORK ROAD EXHIBIT

Design | Detail | Check

WHITE ENGINEERING ASSOCIATES

STATE OF OKLAHOMA
DEPARTMENT OF TRANSPORTATION
JOB PIECE NO. 32100(04)
SHEET NO.

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WATERS AND WETLANDS EVALUATION REPORT

For

County	Muskogee & Sequoyah	JP Number	32100(04)	Project Number	J3-2100(004)
Road Number	SH-100	Water Body Name		Arkansas River	
ROW Date	2021	Let Date	2023	Project Length	1 mile
Project General Location		Between Gore and Webber Falls, OK			
Project Statement		SH-100 bridge and approaches over the Arkansas River at the Muskogee/Sequoyah County line			

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

Prepared by:

Biologist Name	Melissa Cross
Company/Agency Name	CP&Y, Inc.
Address	2000 N. Classen Blvd
City, State Zip	Oklahoma City, OK 73106

Report Date:	March 23, 2021
Field Date:	March 17, 2021

PROJECT OVERVIEW

Project Type (Choose one)	**Check √**
Bridge and Approaches or bridge widening/structure extension	X
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 SH-100 bridge over the Arkansas River (NBI# 17611) has two 12-foot wide asphalt travel lanes with 10-foot-wide asphalt shoulders. The existing deck is approximately 44 feet in width and has a total vertical clearance of 99.99 feet (52.0 feet navigational clearance). The existing structure length is 1,928.15 feet. The existing bridge is a concrete cast-in-place bridge and consists of 3 main spans with 11 total spans. There are also bridge protection piers adjacent to the bridge piers to prevent barges colliding with the structure. The current abutments at either end of the bridge are slightly warped with visible cracks. The existing bridge is "at-risk" of becoming structurally deficient with a sufficiency rating of 66.70. The current Annual Average Daily Traffic (ADT) for 2020 is estimated at 3,700 vehicles per day (VPD) and the 20-year projected ADT is 5,00 VPD. The project purpose is to correct a bridge that is "at-risk" of becoming structurally deficient.

Description of **proposed** improvements **SPECIFIC TO THIS PROJECT**

The proposed project would replace the SH-100 bridge over the Arkansas River. The existing bridge deck and the piers would be relocated within the allowances of the existing pier protections. New abutments would be installed at either end of the bridge. It will be replaced with a 40-foot Clear Roadway bridge on existing alignment with no offset. The new bridge will be 1,926 feet in length and 43 feet in width (excluding guardrails). New and fewer piers will be constructed within the OHWM. The existing pier protection will remain. The proposed SH-100 roadway would have two 12-foot wide asphalt travel lanes and 8-foot wide asphalt shoulders. Work within the OHWM of the Arkansas River is anticipated. Work roads will be

required for work on the bridge abutments. Existing drilled shafts within the river may be removed for construction access but would be replaced after construction is complete. No new right-of-way (ROW) is proposed for the project. The bridge will be closed during construction and local traffic will be detoured on local roadways.

Project Environmental Study Footprint

Project Location		**Environmental Study Footprint**	
Section Range & Township	Lat/Long (NAD 83)	Dimensions	Acreage
S13-T12N-R20E, S18-T12N-R21E, S7-T12N-R21E	Start: 35°30'52.80"N, 95°8'4.50"W End: 35°31'24.93"N, 95°7'15.96"W	Approximately 1 mile long and ranges from 200 feet to 600 feet wide	56.9

Environmental Study Footprint Soils (NRCS Soil Survey Map)

Map Unit Name	**Percent Slope**	**Drainage Class**	**Hydric Rating**		**Description**
			YES	**NO**	
Choska silt loam, rarely flooded (8)	0 to 1	Well drained		X	All areas prime farmland. Parent material is not rated or not available.
Garton silt loam, rarely flooded (Bw)	0 to 1	Moderately well drained		X	All areas are prime farmland. Parent material is loamy alluvium.
Kiomatia loamy fine sand, frequently flooded (29)	0 to 1	Well drained		X	Not prime farmland. Parent materials is calcareous sandy alluvium.
Oklared fine sandy loam, occasionally flooded (Ya)	3 to 5	Well drained	**X**		All areas are prime farmland. Parent materials is calcareous sandy and loamy alluvium.
Roxana very fine sandy loam, rarely flooded (60)	0 to 1	Well drained		X	All areas prime farmland. Parent material is loamy alluvium.
Stigler-Wrightsville complex (SoA)	0 to 1	Somewhat poorly drained	**X**		All areas prime farmland. Parent materials is loamy and clayey alluvium and/or colluvium over sandstone and shale.

Map Unit Name	Percent Slope	Drainage Class	Hydric Rating		Description
			YES	NO	
Stigler silt loam, eroded (SrC2)	3 to 5	Somewhat poorly drained		X	Not prime farmland. Parent materials is loamy and clayey alluvium and/or colluvium over sandstone and shale.

Environmental Study Footprint General Description and Vegetation Present

Two plant communities dominated the NEPA study footprint: riparian woodland and maintained/disturbed grassland.

- The riparian woodland mainly surrounded the Arkansas River and the park land areas at the bridge approaches. Dominant species of this vegetative community include eastern cottonwood (*Populus deltoides*), American sycamore *(Platanus occidentalis*), pecan (*Carya illnoinensis*), red oak (*Quercus rubra*), cedar elm (*Ulmus crassifolia*), and Johnsongrass (*Sorghum halapense*). On the northeastern side of the bridge only bamboo (*Phyllostachys sp.*) was the dominant understory plant
- The maintained/disturbed community was mainly located within the existing ROW and park land located near the bridge approaches on either end of the bridge. Vegetation in this community includes Bermudagrass (*Cynodon dactylon*) and Johnsongrass.

The Arkansas River was observed flowing from northwest to southeast within the study area. Canada Geese (*Branta canadensis*) were observed within the study area along the banks of the river, and a Bald Eagle (*Haliaeetus leucocephalus*) was observed soaring over the project area. One ribbon snake (*Thamnophis saurita*) and two unidentified water snakes were also observed within the study area.

WATERS AND WETLANDS EVALUATION

Data Sources Reviewed (list)

USGS 7.5 minute Quad	NWI Map	USACE Wetland Regional Supplement	Additional Resources Reviewed
Webber Falls	Digital NWI Data for Muskogee and Sequoyah Counties	Eastern Mountains and Piedmont	NHD Data for Oklahoma
Core	Digital NWI Data for Muskogee and Sequoyah Counties	Eastern Mountains and Piedmont	NHD Data for Oklahoma

Wetlands and Ponds Summary Table

Field Sites	Type of Wetland or Pond	Cowardin Classification	Potential Jurisdictional Status	Acres within Environmental Study Footprint
Wetland A	Forested	Palustrine	Likely	0.05
Wetland B	Riverine	Palustrine	Likely	0.32

Streams and Drainages Summary Table

Field Sites	Stream Name	USGS Mapped Status	Potential Jurisdictional Status	Acres within Environmental Study Footprint	Linear Feet within Environmental Study Footprint
Stream 1	Arkansas River	Perennial	Likely	22.97	600

Streams and other linear aquatic features

Stream 1

Stream 1 is mapped on the United Stated Geological Survey (USGS) topographic map as the Arkansas River, a perennial stream. This stream is also mapped by the National Hydrography Dataset (NHD). The river eventually drains to the Canadian River. As observed in the field, the feature flowed from north to south and had flowing water present. The acreage of the feature within the environmental study footprint was 22.97 acres and spans the width of the study area to run for approximately 600 linear feet. The width of the OHWM within the project area was approximately 1,595 feet. Vegetation along this stream consisted mainly of woody riparian vegetation but a parkland was present on both sides of the bridge consisting primarily of Bermuda grass, Johnson grass, and a sand bar. A complete description of the vegetation present is provided in the vegetation descriptions above. This feature would be considered jurisdictional as the Arkansas River is a Traditionally Navigable Water (TNW).

Wetlands and ponds

Wetland A

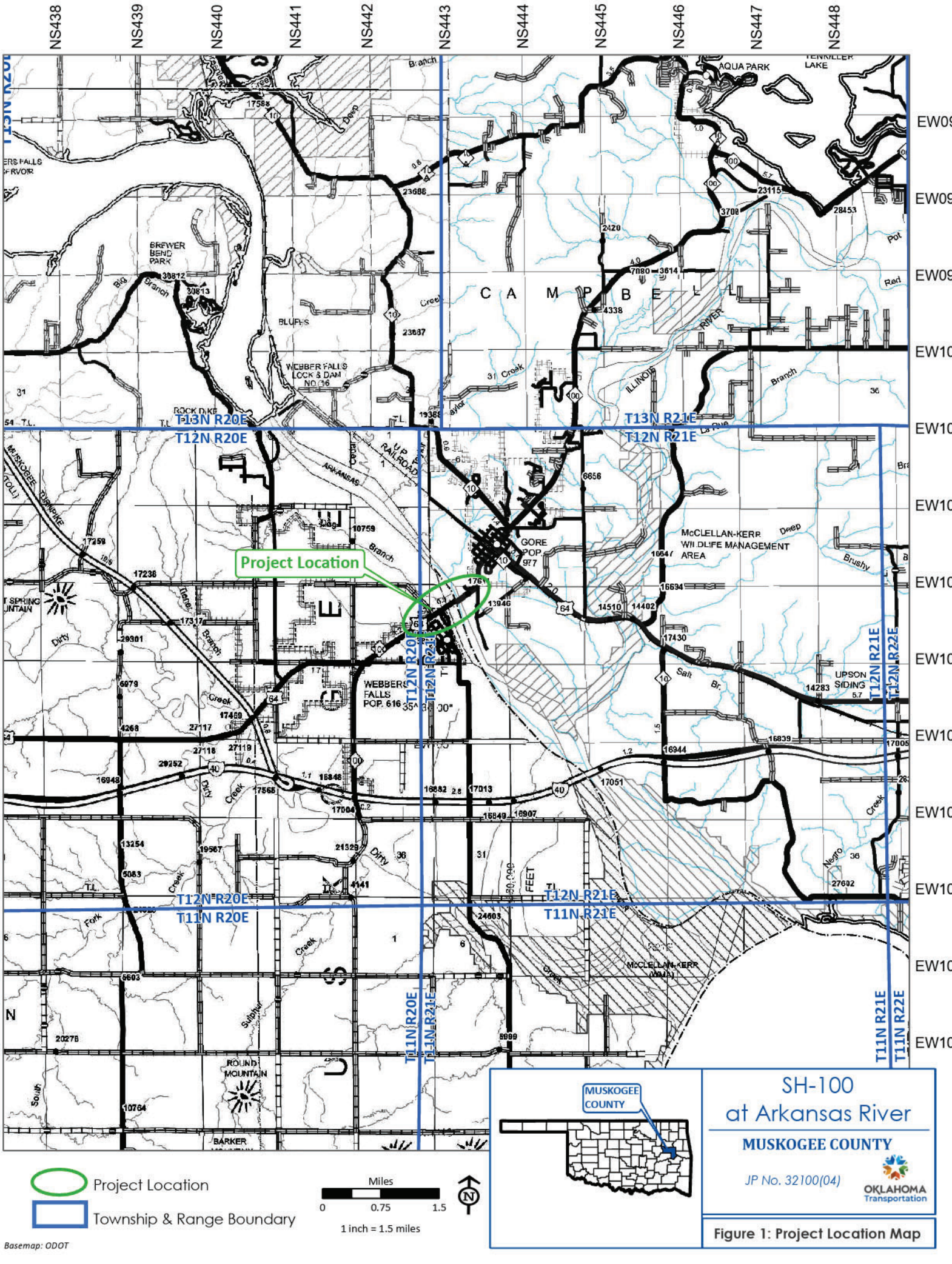
Wetland A is a field verified forested wetland that occurs within the 100-year floodplain of the Arkansas River. This wetland is mapped by the National Wetlands Inventory (NWI) as a lake associated with the Arkansas River. This wetland was delineated as a depressional area that totaled approximately 0.05 acres within the study area. Field hydrology indicators for this wetland included geomorphic position, soil saturation, high water table, drift deposits, and standing water. The hydrophytic vegetation observed within the sampled location included Box elder (*Acer negundo*), Green Ash (*Fraxinus pennsylvanica*), hairyfruit chervil (*Chaerophyllum tainturieri*), and showy tick trefoil (*Desmodium canadense*). The hydric soils indicators of a reduced matric

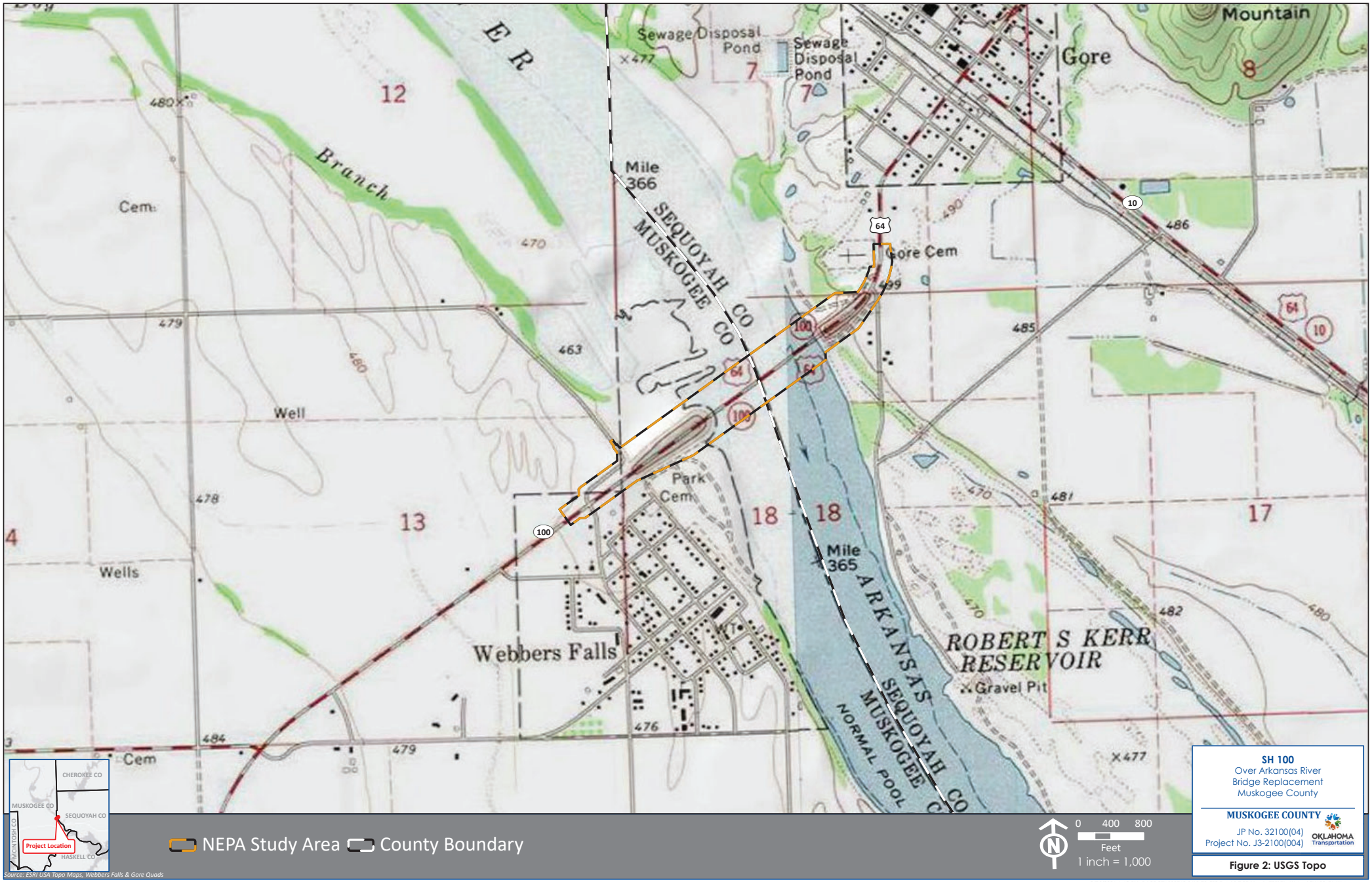
and redox depressions were met. The proximity of this wetland to the OHWM of the Arkansas River and that it occurs within the 100-year floodplain of the river suggest that the hydrology of this wetland is based completely on the Arkansas River. As this wetland is hydrologically connected with the TNW and appears to be regularly saturated it would likely be considered jurisdictional. Though this wetland is associated with an NWI, the wetland determination point (WP) used to delineate this wetland was placed outside of the NWI boundary. Refer to WP 1 for this wetland.

Wetland B

Wetland B is a field verified riverine wetland that is mapped by the NWI as a lake and directly shares hydrology with the Arkansas River. This is a palustrine wetland that totaled approximately 0.32 acres in size within the study area. The wetland hydrology indicators observed were inundation visible on aerial imagery, geomorphic position, and standing water. Hydrophytic vegetation at the sampled location was dominated by sand-bar willow (*Salix exigua*), but black willows (*Salix nigra*) and American sycamores were also present in the wetland as a whole. Due to the depth of the standing water no soil sample could be taken, but as the area is mapped as an NWI wetland, and had both wetland hydrology and hydrophytic vegetation, hydric soils were assumed. This wetland has direct hydrologic connectivity with the Arkansas River and is likely regularly inundated from the flow of the river. Therefore, this wetland would likely be considered jurisdictional due to its hydrological connectivity to a TNW. Though this wetland is associated with an NWI, the WP used to delineate this wetland was placed outside of the NWI boundary. Refer to WP 3 for this wetland.

FIGURES


NS438
NS439
NS440
NS441
NS442
NS443
NS444
NS445
NS446
NS447
NS448
EW097
EW098
EW099
EW100
EW101
EW102
EW103
EW104
EW105
EW106
EW107
EW108
EW109
Project Location
T13N R20E
T12N R20E
T13N R21E
T12N R21E
T12N R22E
T11N R20E
T11N R21E
T11N R22E
WEBBERS FALLS POP. 616
GORE POP. 877
UPSON SIDING
McCLELLAN-KERR WILDLIFE MANAGEMENT AREA
AQUA PARK
BREWER BEND PARK
BLUFFS
WEBBER FALLS LOCK & DAM NO. 16
ROCK DIKE
ROUND MOUNTAIN
BARKER
ARKANSAS RIVER
ILLINOIS RIVER
Project Location
Township & Range Boundary
Miles
0
0.75
1.5
1 inch = 1.5 miles
Basemap: ODOT
MUSKOGEE COUNTY
SH-100
at Arkansas River
MUSKOGEE COUNTY
JP No. 32100(04)
OKLAHOMA Transportation
Figure 1: Project Location Map



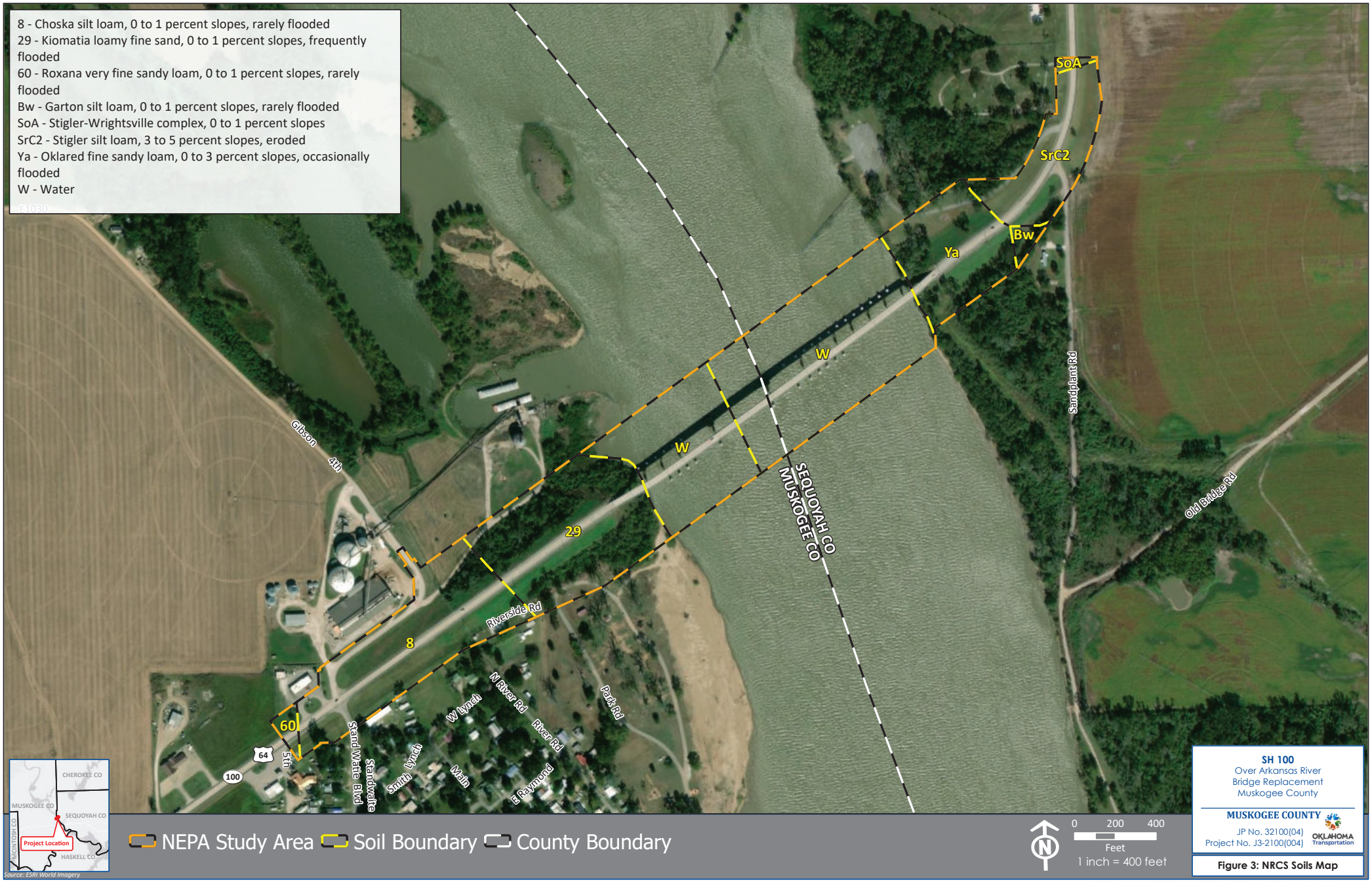
SH 100
Over Arkansas River
Bridge Replacement
Muskogee County

MUSKOGEE COUNTY

JP No. 32100(04)
Project No. J3-2100(004)

OKLAHOMA Transportation

Figure 2: USGS Topo



SH 100
Over Arkansas River
Bridge Replacement
Muskogee County

MUSKOGEE COUNTY

JP No. 32100(04)
Project No. J3-2100(004)

OKLAHOMA Transportation

Figure 3: NRCS Soils Map



SH 100
Over Arkansas River
Bridge Replacement
Muskogee County

MUSKOGEE COUNTY

JP No. 32100(04)
Project No. J3-2100(004)

OKLAHOMA Transportation

Figure 4: Water Resources

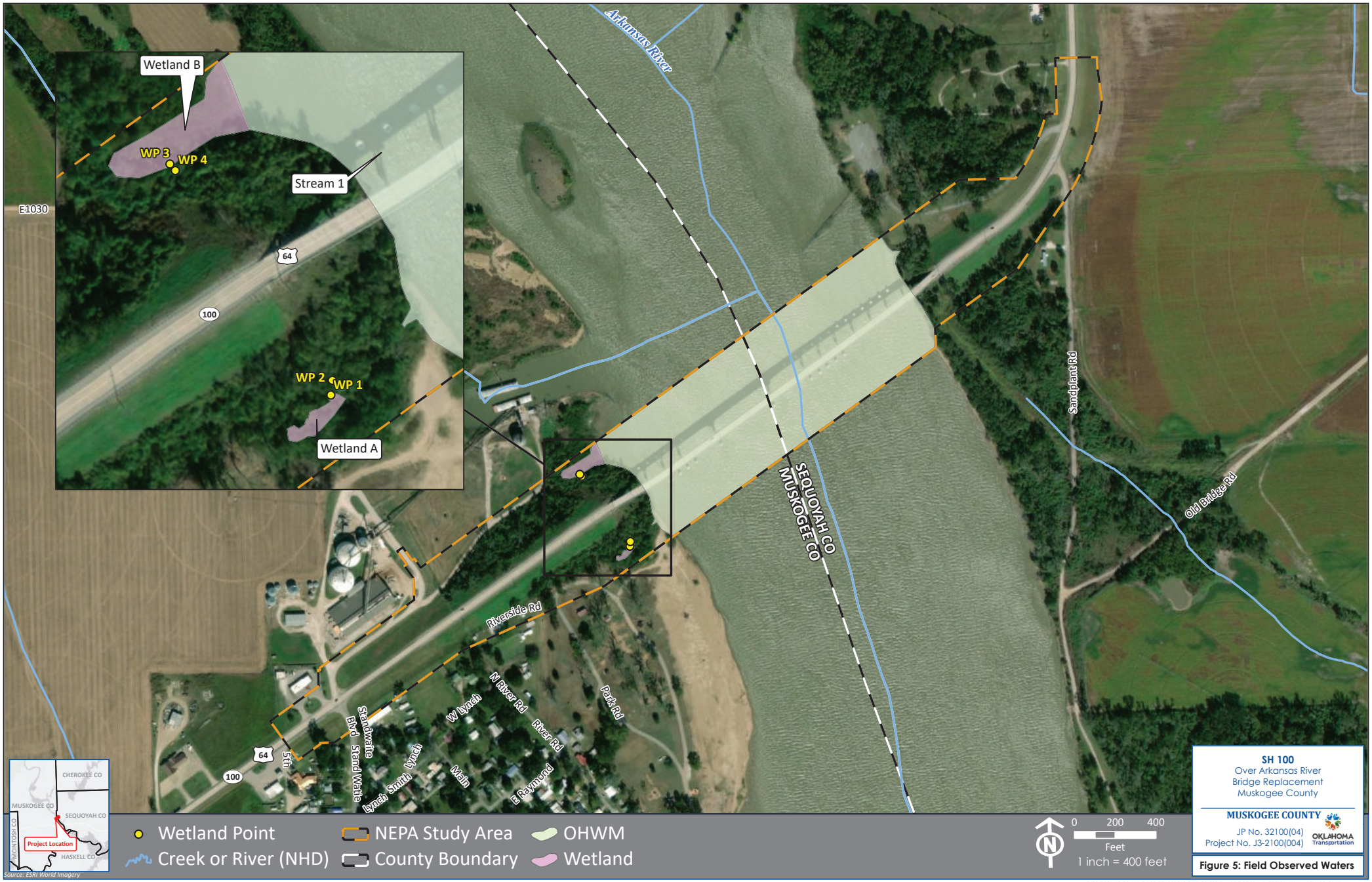


Figure 5: Field Observed Waters



Photograph 1: A north-east facing view from the southern extent of the study area.



Photograph 2: A northeast-facing view of the Arkansas River and SH-100 bridge.



Photograph 3: An east facing view of Wetland A within the study area.



Photograph 4: A view of WP 1 within Wetland A. This sampled location met the three necessary criteria to be considered a wetland.



Photograph 5: A view of WP 2. This sampled location did not meet the three necessary criteria to be considered a wetland.



Photograph 6: A view of Wetland B within the study area.



Photograph 7: A view of the location of Wetland Determination Point (WP) 3 within Wetland B. This sampled location met the three necessary criteria to be considered a wetland.



Photograph 8: A view of WP 4. This sampled location did not meet the three necessary criteria to be considered a wetland.



Photograph 9: A southwest-facing view of the Arkansas River and SH-100 bridge.



Photograph 10: A south-facing view from the northern extent of the study area.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: SH 100 over Arkansas River City/County: Muskogee County Sampling Date: 3/17/2021

Applicant/Owner: ODOT State: OK Sampling Point: 1

Investigator(s): M. Cross (CP&Y), K. Strickland (CP&Y) Section, Township, Range: S18-T12N-R21E

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0

Subregion (LRR or MLRA): MLRA 116B Lat: 35.517212 Long: -95.12873 Datum: NAD 1983

Soil Map Unit Name: 29 - Kiomatia loamy fine sand, 0-1% slopes, frequently 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 X	No _____	**Is the Sampled Area within a Wetland?** **Yes** X **No** _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

Hydrophytic vegetation, hydric soils, and wetland hydrology were all present; therefore, the sampled is within a wetland.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☑ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☑ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ 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)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No _____	Depth (inches): 2
Water Table Present?	Yes X	No _____	Depth (inches): 4
Saturation Present? (includes capillary fringe)	Yes X	No _____	Depth (inches): 0

Wetland Hydrology Present? **Yes** X **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland Hydrology was observed.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: 1

Tree Stratum (Plot size: 15ft x 15ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer negundo	25	Y	FAC
2. Fraxinus pennsylvanica	10	Y	FACW
3. Ulmus americana	2	N	FACW
4.			
5.			
6.			
7.			
	37 = Total Cover		
50% of total cover: 18.5	20% of total cover: 7.4		

Sapling/Shrub Stratum (Plot size: 15ft x 15ft)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	0 = Total Cover		
50% of total cover: 0	20% of total cover: 0		

Herb Stratum (Plot size: 15ft x 15ft)			
1. Chaerophyllum tainturieri	8	Y	FAC
2. Desmodium canadense	5	Y	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	13 = Total Cover		
50% of total cover: 6.5	20% of total cover: 2.6		

Woody Vine Stratum (Plot size: 15ft x 15ft)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
50% of total cover: 0	20% of total cover: 0		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

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.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation was observed.

SOIL Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10 YR 4/2	95	7.5 YR 4/6	5	C	M	Loam	
10-16	10 YR 4/2	98	7.5 YR 4/4	2	C	M	Sandy Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10) **(LRR N)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ☐ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ☐ Umbric Surface (F13) **(MLRA 136, 122)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ☐ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(MLRA 147)**
- ☐ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** _____

Remarks:

The Depleted Matrix Indicator was met. Hydric Soil was present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: SH 100 over Arkansas River City/County: Muskogee County Sampling Date: 3/17/2021

Applicant/Owner: ODOT State: OK Sampling Point: 2

Investigator(s): M. Cross (CP&Y), K. Strickland (CP&Y) Section, Township, Range: S18-T12N-R21E

Landform (hillslope, terrace, etc.): Riverbank Local relief (concave, convex, none): Concave Slope (%): 0

Subregion (LRR or MLRA): MLRA 116B Lat: 35.517274 Long: -95.128720 Datum: NAD1983

Soil Map Unit Name: 29 - Kiomatia loamy fine sand, 0-1% slopes, frequently 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 X	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Hydrophytic vegetation was observed, but hydric soils and wetland hydrology were not; therefore, the sampled is not within a wetland.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ 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)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No X	Depth (inches): _____
Water Table Present?	Yes _____	No X	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No X	Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland Hydrology was not observed.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: 2

Tree Stratum (Plot size: 15ft x 15ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. Ulmus americana	5	Y	FACW
2. Acer negundo	5	Y	FAC
3.			
4.			
5.			
6.			
7.			
	10 = Total Cover		
50% of total cover: 5	20% of total cover: 2		
Sapling/Shrub Stratum (Plot size: 15ft x 15ft)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	0 = Total Cover		
50% of total cover: 0	20% of total cover: 0		
Herb Stratum (Plot size: 15ft x 15ft)			
1. Chaerophyllum tainturieri	5	N	FAC
2. Desmodium canadense	50	Y	FAC
3. Galium aparine	5	N	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	60 = Total Cover		
50% of total cover: 30	20% of total cover: 12		
Woody Vine Stratum (Plot size: 15ft x 15ft)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
50% of total cover: 0	20% of total cover: 0		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

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.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation was observed.

SOIL Sampling Point: 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	7.5 YR 3/1	100					Loamy Sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10) **(LRR N)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ☐ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ☐ Umbric Surface (F13) **(MLRA 136, 122)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ☐ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(MLRA 147)**
- ☐ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rock/Rip-rap

Depth (inches): 2

Hydric Soil Present? **Yes** ____ **No** X

Remarks:

Hydric soils were not observed.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: SH 100 over Arkansas River City/County: Muskogee County Sampling Date: 3/17/2021

Applicant/Owner: ODOT State: OK Sampling Point: 3

Investigator(s): M. Cross (CP&Y), K. Strickland (CP&Y) Section, Township, Range: S18-T12N-R21E

Landform (hillslope, terrace, etc.): Riverbank Local relief (concave, convex, none): Concave Slope (%): 0

Subregion (LRR or MLRA): MLRA 116B Lat: 35.51820 Long: -95.12952 Datum: NAD1983

Soil Map Unit Name: 29 - Kiomatia loamy fine sand, 0-1% slopes, frequently 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 X	No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

Hydrophytic vegetation, hydric soils, and wetland hydrology were all present; therefore, the sampled is within a wetland.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [x] Surface Water (A1)
- [x] High Water Table (A2)
- [x] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [x] Inundation Visible on Aerial Imagery (B7)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [ ] True Aquatic Plants (B14)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Oxidized Rhizospheres on Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] 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)
- [x] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4)
- [ ] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes X No _____ Depth (inches): >24

Water Table Present? Yes X No _____ Depth (inches): 0

Saturation Present? (includes capillary fringe) Yes X No _____ Depth (inches): 0

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland Hydrology was observed.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: 3

Tree Stratum (Plot size: 15ft x 15ft)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
50% of total cover: 0	20% of total cover: 0		
Sapling/Shrub Stratum (Plot size: 15ft x 15ft)			
1. Salix interior	50	Y	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	50 = Total Cover		
50% of total cover: 25	20% of total cover: 10		
Herb Stratum (Plot size: 15ft x 15ft)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	0 = Total Cover		
50% of total cover: 0	20% of total cover: 0		
Woody Vine Stratum (Plot size: 15ft x 15ft)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
50% of total cover: 0	20% of total cover: 0		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

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.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation was observed.

SOIL Sampling Point: 3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10) **(LRR N)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ☐ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ☐ Umbric Surface (F13) **(MLRA 136, 122)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ☐ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(MLRA 147)**
- ☐ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** _____

Remarks:

The water was too deep to be able to extract a soil sample. Because wetland hydrology and hydrophytic vegetation was observed, hydric soils were assumed.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: SH 100 over Arkansas River City/County: Muskogee County Sampling Date: 3/17/2021

Applicant/Owner: ODOT State: OK Sampling Point: 4

Investigator(s): M. Cross (CP&Y), K. Strickland (CP&Y) Section, Township, Range: S18-T12N-R21E

Landform (hillslope, terrace, etc.): Riverbank Local relief (concave, convex, none): Concave Slope (%): 0

Subregion (LRR or MLRA): MLRA 116B Lat: 35.518172 Long: -95.129493 Datum: NAD1983

Soil Map Unit Name: 29 - Kiomatia loamy fine sand, 0-1% slopes, frequently 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 X	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Hydrophytic vegetation was observed, but hydric soils and wetland hydrology were not; therefore, the sampled is not within a wetland.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ 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)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No X	Depth (inches): _____
Water Table Present?	Yes _____	No X	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No X	Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland Hydrology was not observed.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: 4

Tree Stratum (Plot size: 15ft x 15ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. Ulmus americana	20	Y	FACW
2. Acer negundo	5	N	FAC
3. Acer rubrum	10	Y	FAC
4.			
5.			
6.			
7.			
	35 = Total Cover		
50% of total cover: 17.5	20% of total cover: 7		

Sapling/Shrub Stratum (Plot size: 15ft x 15ft)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	0 = Total Cover		
50% of total cover: 0	20% of total cover: 0		

Herb Stratum (Plot size: 15ft x 15ft)			
1. Chaerophyllum tainturieri	5	Y	FAC
2. Galium aparine	5	Y	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	10 = Total Cover		
50% of total cover: 5	20% of total cover: 2		

Woody Vine Stratum (Plot size: 15ft x 15ft)			
1. Rubus trivialis	10	Y	FACU
2.			
3.			
4.			
5.			
	10 = Total Cover		
50% of total cover: 5	20% of total cover: 2		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

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.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation was observed.

SOIL Sampling Point: 4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	7.5 YR 3/2	100					Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10) **(LRR N)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ☐ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ☐ Umbric Surface (F13) **(MLRA 136, 122)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ☐ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(MLRA 147)**
- ☐ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rock/Rip-rap

Depth (inches): 6

Hydric Soil Present? **Yes** ____ **No** X

Remarks:

Hydric soils were not observed.

N R C S COORDINATION

No response received from NRCS.

See attached Farmland Impact Rating Form

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request 8/20/2019
Name of Project SH-100 over Arkansas, JP 32100(04)	Federal Agency Involved FHWA
Proposed Land Use Transportation	County and State Muskogee County, Oklahoma
PART II *(To be completed by NRCS)*	Date Request Received By NRCS 02EKOK00-2021-SL Person Completing Form: Original field studies were

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	Average Farm Size
Major Crop(s)	Farmable Land In Govt. Jurisdiction Acres: %	Amount of Farmland As Defined in FPPA Acres: MA %	
Name of Land Evaluation System Used	Name of State or Local Site Assessment System	Date Land Evaluation Returned by NRCS	

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	24			
B. Total Acres To Be Converted Indirectly				
C. Total Acres In Site	24			
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland				
B. Total Acres Statewide Important or Local Important Farmland				
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value				
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)				

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)				
2. Perimeter In Non-urban Use	(10)				
3. Percent Of Site Being Farmed	(20)				
4. Protection Provided By State and Local Government	(20)				
5. Distance From Urban Built-up Area	(15)				
6. Distance To Urban Support Services	(15)				
7. Size Of Present Farm Unit Compared To Average	(10)				
8. Creation Of Non-farmable Farmland	(10)				
9. Availability Of Farm Support Services	(5)				
10. On-Farm Investments	(20)				
11. Effects Of Conversion On Farm Support Services	(10)				
12. Compatibility With Existing Agricultural Use	(10)				
TOTAL SITE ASSESSMENT POINTS	160	0	0	0	0
PART VII ***(To be completed by Federal Agency)***					
Relative Value Of Farmland *(From Part V)*	100	0	0	0	0
Total Site Assessment *(From Part VI above or local site assessment)*	160	0	0	0	0
TOTAL POINTS ***(Total of above 2 lines)***	260	0	0	0	0

Site Selected:	Date Of Selection	Was A Local Site Assessment Used? YES ☐ NO ☐

Reason For Selection:

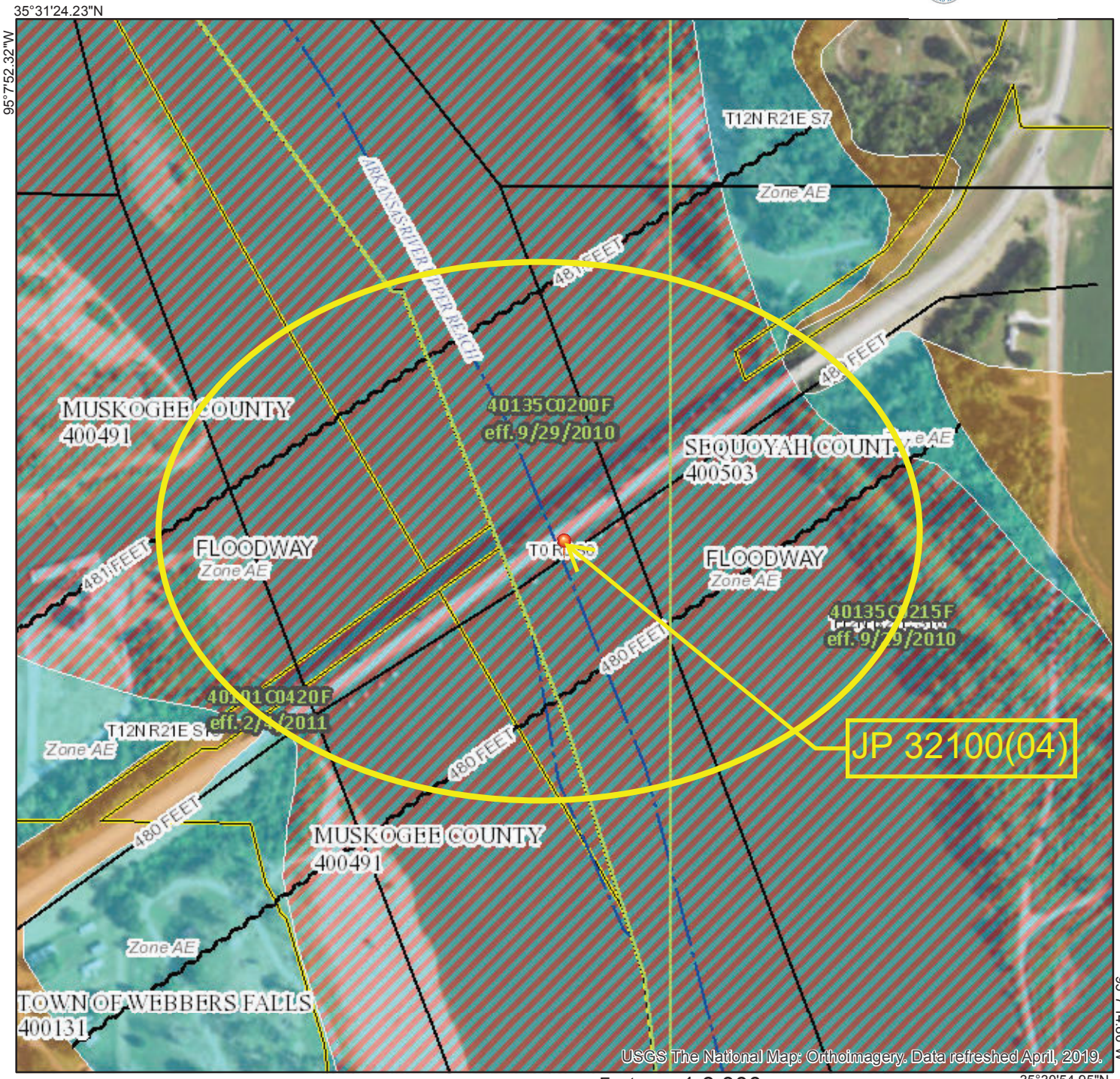
Name of Federal agency representative completing this form:	Date:

(See Instructions on reverse side) **Form AD-1006 (03-02)**

FLOOD PLAIN INFORMATION

National Flood Hazard Layer FIRMette

FEMA



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 10/14/2019 at 11:46:59 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

From:	Leslie Lewis
To:	Scott Stegmann; Chad Edward Grinsteiner
Cc:	Andrew Ward; Wes Stewart
Subject:	SH-100 over the Arkansas River special flood zone and requirements, Muskogee Co., JP 32100(04)
Date:	Wednesday, March 31, 2021 8:05:24 AM
Attachments:	image001.png image002.png image003.png image004.png image005.png image006.png

---

All,
This project is located in Zone AE of the FEMA floodplain and requires a zero rise. Preliminary hydraulics indicate we
have a zero rise in the 100 yr water surface elevation over existing with the proposed. There will be ***no need for a map revision.***
Hope this helps with your documentation.

Leslie Lewis PE, CFM
State Bridge Hydraulic Engineer
llewis@odot.org
TELEWORKING Please use cell
cell 405-822-6009

From: Scott Stegmann <sstegmann@cpyi.com>
Sent: Tuesday, March 30, 2021 6:05 PM
To: Chad Edward Grinsteiner <chad@weainc.com>; Leslie Lewis <LLEWIS@ODOT.ORG>
Cc: Andrew Ward <WWard@odot.org>
Subject: [EXTERNAL] SH-100 over the Arkansas River special flood zone and requirements, Muskogee Co., JP 32100(04)

Chad or Leslie,
The proposed project lies within Special Flood Zone AE and a regulatory floodway as seen in the attached FEMA firmette. Could either of you confirm the project will not require involve an increase to the base 100 Year floodplain that will require a flood map revision as determined by the appropriate state or local authority?

Thanks!

Scott Stegmann
Associate

HAZARDOUS WASTE STUDIES

OKLAHOMA DEPARTMENT OF TRANSPORTATION
CONSULTANT REPORT REVIEW – HAZARDOUS WASTE

Reviewed By: David Edwards
Review Date: 09/27/2021
Consultant: CP&Y/Enercon
County: Muskogee
Project No.: J3-2100(004)
J/P Number: 32100(04)

1. PROJECT DESCRIPTION: BRIDGE & APPROACHES SH-100: BRIDGE OVER ARKANSAS RIVER AT THE MUSKOGEE/SEQUOYAH C/L.

2. LEVEL OF INVESTIGATION: ☒ 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):

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: None needed.

6. GENERAL COMMENTS: The ISA identified the Gore Bait and Tackle (304 South Main Street, Gore) and the utility lines within the project corridor as low environmental risk to the project. These items are not expected to affect the construction of the project and no further action is recommended.

ATTACH EXCERPTS FROM REPORT, AS APPROPRIATE.*

*The full document is on file with ODOT's Environmental Programs Division. Please contact David Edwards at (405) 521-2673 or daedwards@odot.org for more information.

INITIAL SITE ASSESSMENT

SH-100: BRIDGE OVER ARKANSAS RIVER
MUSKOGEE/SEQUOYAH COUNTY LINE, OKLAHOMA

Engineering Contract No. CI-2200, Construction J/P# 32100(04)
ENERCON PROJECT NO. CPYI-00012

Prepared For:

Oklahoma Department of Transportation
Environmental Programs Division
Oklahoma City, OK

Prepared By:

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Seth Scherm
Environmental Specialist

Reviewed by:

Bradley Brittain
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Environmental Consultant License #1582

INITIAL SITE ASSESSMENT

SH-100: BRIDGE OVER ARKANSAS RIVER
MUSKOGEE/SEQUOYAH COUNTY LINE, OKLAHOMA

Engineering Contract No. CI-2200, Construction J/P# 32100(04)
ENERCON PROJECT NO. CPYI-00012

1.0 EXECUTIVE SUMMARY

The Oklahoma Department of Transportation (ODOT) requested an Initial Site Assessment (ISA) of a segment of State Highway 100 (SH-100) covering the northeast and southwest bound sides of the bridge crossing the Arkansas River at the Muskogee and Sequoyah County Line. The SH-100 segment begins 2,000 feet west of the bridge at 5th Street in Webbers Falls, Muskogee County, and ends approximately 1,500 feet east of the bridge in Gore, Sequoyah County. The Area of Investigation (AOI) is generally characterized by SH-100, native grass and tree covered vacant land, agricultural land, a rural residence, a portion of Consolidated Grain and Barge Company's parking lot, a portion of the Webber's Falls Police Department's parking lot, and a portion of North Sand Watie Boulevard. ODOT requested the ISA realizing the potential for presence of hazardous waste or soil/groundwater pollution within or adjoining 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, 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 ISA to present a low, moderate, or high environmental risk to the AOI are listed below.

- Leaking Underground Storage Tanks (LUST) located north of the AOI.
- Overhead utility lines and underground cables located within the AOI.

2.0 INVESTIGATIVE METHODS AND EVALUATION CRITERIA

2.1 Purpose

ODOT requested an ISA of a segment of SH-100 covering the northeast and southwest bound sides of the bridge crossing the Arkansas River at the Muskogee and Sequoyah County Line. The SH-100 segment begins 2,000 feet west of the bridge at 5th Street in Webbers Falls, Muskogee County, and ends approximately 1,500 feet east of the bridge in Gore, Sequoyah County. The AOI is generally

reasons, potentially hazardous waste sites adjoining the proposed AOI to the north and west would more likely impact the AOI. However, site specific topography can influence these exceptions.

ENERCON researched groundwater well information for the AOI from the USGS website database and the OWRB website database (**Exhibit E**). OWRB geotechnical boring well records were found near the AOI corridor. An OWRB well map is included in **Exhibit E**.

4.3 Local Geology

The Oklahoma Geologic Survey's Map of the Muskogee 7.5-Minute Quadrangle was reviewed to determine subsurface geologic characteristics. The Arkansas River, a perennial river, and major tributary of the Mississippi River, is surrounded by land subject to inundation. Beneath this land are primarily the Atoka Formation (IPat) and Alluvium (Qal).

The Middle Pennsylvanian Atoka Formation consists mainly of shale, siltstone, and thin limestone. The Holocene age Alluvium in this area consists of sand, clay and gravel that can be as much as 50 feet thick. This type of alluvium is only shown along major streams and tributaries.

Mean annual precipitation of the AOI area is approximately 46 inches per year with the wet seasons recognized as May - June and September - October.

A Geologic Map of the subject area is included in **Exhibit B, Figure 3**. A Soil Map of the subject area is included in **Exhibit B, Figure 4**.

5.0 FINDINGS AND RECOMMENDATIONS

Summarized below are the major findings from this Initial Site Assessment and appropriate recommendations.

Gore Bait and Tackle (304 South Main in Gore, OK) – This site is located approximately 722 feet northeast of the AOI and is listed on the environmental database as a LAST, AST, UST, and HIST UST site. According to the Oklahoma Corporation Commission (OCC) Petroleum Storage Tank (PST) database, this location previously maintained three (3) ASTs and currently maintains two (2) USTs. According to the environmental database a confirmed AST release occurred in 2007. The confirmed release case (OCC #064-3236) was closed in July 2010. A suspicion of release was also reported in 2007. The suspicion of release case (OCC #SOR-3236) was closed in 2007. Based on the distance of the estimated benzene plume from the AOI and the relative topographic gradient to the AOI, the confirmed AST release at this site is considered a low environmental concern to the AOI.

> ***Recommendation*** *– ENERCON considers this potential subsurface soil and groundwater contamination from the benzene plume from the AST release an environmental concern. Based on the distance of the site and estimated plume from the AOI, ENERCON considers this a low risk site. If ODOT needs additional information relating to the potential impact to her ROW, ENERCON recommends a review of historical OCC documents and a limited subsurface evaluation.*

Utility Lines in Corridor

Multiple utility pole-mounted transformers were observed along the length of the US-51 project corridor, with no signs of leak or staining. Additionally, and in conjunction with the utility-pole mounted transformers, overhead powerlines and telephone lines were observed along the majority of the project area corridor/AOI/ROW running parallel to the project roadway. Lines crossed the project roadway at several locations.

> ***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.*

Pipeline in Corridor

Pipeline markers were identified during the site reconnaissance. No pipelines were identified within the AOI on the National Pipeline Mapping Systems (NPMS) Public Map Viewer.

> ***Recommendation –*** *ENERCON considers the pipelines in the corridor to be a low environmental concern to the AOI. However, precautions and correspondence with pipeline owners should be taken prior to project construction. No further investigation is recommended at this time.*

TABLE 2
POTENTIAL ENVIRONMENTAL HAZARDS
STATE HIGHWAY 100
BRIDGE OVER THE ARKANSAS RIVER
MUSKOGEE/SEQUOYAH COUNTY LINES, OK
ODOT J/P NO. 32100(04)
ENERCON PROJECT NO. CPYI-00012

Map I.D.	*BUSINESS*	*ADDRESS*	*TYPE OF OPERATION*	*ACTIVE/ LOSED*	*ENVIRONMENTAL CONCERN*	*POTENTIAL CONSTITUENTS/ CONTAMINANTS*	*COMMENTS*	*POSITION RELATIVE TO ROW*	*RELATIVE ELEVATION*	*EXPECTED GW FLOW DIR.*	*LEVEL OF CONCERN*
1	Gore Bait & Tackle	304 South Main, Gore OK	Fishing Store, Convenience Store, Gas Station	Active	LAST / AST / UST / HIST UST	Gasoline, Diesel	Reported AST release	Northeasr	Up-gradient	General east	Low Soil/GW Impact to AOI



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Oklahoma City, OK 73128
www.enercon.com
405.722.7693 405.722.7694 (fax)

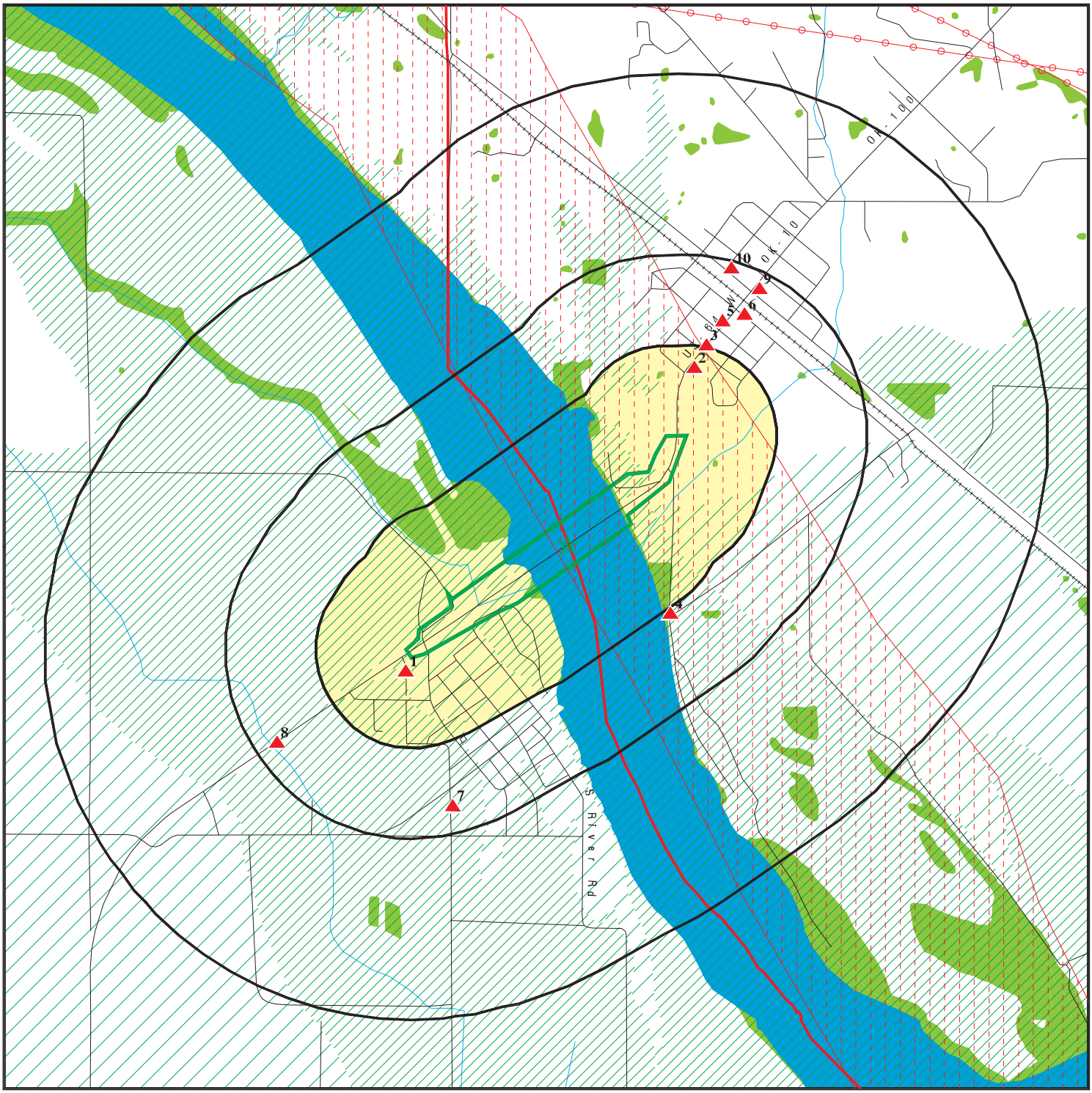
Source: EDR Aerial Photo Decade Package, 2021
Project: CPYI-00012

Figure 1: Site Map

SH-100: Bridge Over Arkansas River
Muskogee/Sequoyah County Line, Oklahoma

J/P #32100(04)

OVERVIEW MAP - 6418026.2S



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites

0 1/4 1/2 1 Miles

- Indian Reservations BIA
- County Boundary
- Power transmission lines
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- National Wetland Inventory

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	ODOT SH-100 Over Arkansas River	CLIENT:	Enercon Services, Inc.
ADDRESS:	State Highway 100 and N. 4th Street Webbers Falls OK 74470	CONTACT:	Seth Scherm
LAT/LONG:	35.519079 / 95.126568	INQUIRY #:	6418026.2s
		DATE:	March 23, 2021 12:09 pm

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INITIAL SITE ASSESSMENT

SH-100: ARKANSAS RIVER BRIDGE CORRIDOR

MUSKOGEE AND SEQUOYAH COUNTY LINE, OKLAHOMA

JP No. 32100(04) – Subconsultant Agreement
CP&Y Job Number: ODOT1800513.01
ENERCON PROJECT NO. CP&Y~00003

Prepared For:

Oklahoma Department of Transportation
Environmental Programs Division
Oklahoma City, OK

Prepared By:

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July 2019

INITIAL SITE ASSESSMENT

SH-100: ARKANSAS RIVER BRIDGE CORRIDOR

MUSKOGEE AND SEQUOYAH COUNTY LINE, OKLAHOMA

JP No. 32100(04) – Subconsultant Agreement
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INITIAL SITE ASSESSMENT

SH-100: ARKANSAS RIVER BRIDGE CORRIDOR

MUSKOGEE AND SEQUOYAH COUNTY LINE, OKLAHOMA

JP No. 32100(04) – Subconsultant Agreement
CP&Y Job Number: ODOT1800513.01
ENERCON PROJECT NO. CP&Y~00003

1.0 EXECUTIVE SUMMARY

CP&Y requested an Initial Site Assessment (ISA) along a segment of State Highway 100 (SH-100) covering the northeast bound and southwest bound sides of the bridge crossing the Arkansas River at the Muskogee and Sequoyah County Line. The segment begins 2,000 feet west of the bridge in Webbers Falls, Muskogee County, and ends approximately 1,500 feet east of the bridge in Gore, Sequoyah County. The Area of Investigation (AOI) is generally characterized by SH-100, native grass and tree covered vacant land, agricultural land, a portion of Consolidated Grain and Barge Company's parking lot, and a portion of North Sand Watie Boulevard. The Oklahoma Department of Transportation (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.

- Leaking Underground Storage Tank (LUST)
- Utility lines located within the AOI.

2.0 INVESTIGATIVE METHODS AND EVALUATION CRITERIA

2.1 Purpose

CP&Y requested an Initial Site Assessment (ISA) along a segment of State Highway 100 (SH-100) covering the northeast bound and southwest bound sides of the bridge crossing the Arkansas River at the Muskogee and Sequoyah County Line. The segment begins 2,000 feet west of the bridge in Webbers Falls, Muskogee County, and ends approximately 1,500 feet east of the bridge in Gore, Sequoyah County. The Area of Investigation (AOI) is generally characterized by SH-100, native grass and tree covered vacant land, agricultural land, a portion of Consolidated Grain and Barge Company's parking lot, and a portion of North Sand Watie Boulevard. The Oklahoma Department of Transportation (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.

2.2 Authorization

ENERCON was contracted by ODOT to complete this ISA according to the work plan dated May 13, 2019.

2.3 Standard of Investigation

This report was prepared according to guidelines for Initial Site Assessments as part of guidelines for ISAs as specified by ODOT. 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), 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 was evaluated. An inventory of registered wells and wells identified from site reconnaissance or from other records was completed. 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, and aerial photographs were reviewed. Research methods used include:

2.5.1 Historical Records Review

City directories were not reviewed for this ISA, as the AOI did not have a physical address, and would not have provided any kind of historical context to review of the AOI.

2.5.2 Aerial Photographs

Aerial photographs were available from the National Agricultural Imagery Program (NAIP), the USGS, and the Oklahoma Department of Libraries. Aerial photographs are provided in Exhibit C.

2.5.3 Interviews with Cognizant Personnel

ENERCON was unable to interview cognizant personnel for their knowledge of site activities that would be of concern. Local personnel often have knowledge of site operations and conditions, which exceed business and legal record keeping requirements. The ISA report lists potential personnel to interview for site specific information pertaining to the AOI in Table 1 of Exhibit A.

2.5.4 Sanborn Fire Insurance Maps

Historical Sanborn Maps were not available for portions of the AOI.

2.6 Evaluation Criteria and Environmental Risk

This ISA was prepared considering the services requested, project background, requirements and compliance issues defined by ODOT. A regulatory database search was conducted by Environmental Data Resources, Inc. (EDR) (See Exhibit F). The database report provided research and documentation of the regulatory status of properties along the alignment including any reports concerning properties along the alignment or adjoining properties that appear from:

- EPA National Priorities List;
- CERCLIS database research;
- Emergency Response Notification Listing Reports (ERNs);
- Oklahoma Water Resource Board;
- Local Fire Departments;
- County Records (maps and files)

- Utility Companies Records (maps, files, and plans);
- Department of Transportation right-of-way maps, aerials, and files;
- OCC List of Registered Underground Storage Tanks (USTs).

This information was collected and reviewed for available information regarding site history, fuel storage, solvent and used oil storage, USTs on subject and adjoining properties, use of hazardous materials, previous investigations, regional geology and hydrology, regional groundwater quality, location and installation of utilities, nearby monitoring wells and water wells, and other pertinent information. The information was reviewed and assembled into a coherent description of general information about the area and corridor, including a description of the nature of any materials released, mean annual precipitation, land use data, etc.

Aerial photographs, site reconnaissance, and topographic maps were utilized to determine past and present land use pertaining to any potentially hazardous waste sites or other areas of environmental concern that could affect ODOT planning or evaluations.

ENERCON performed field reconnaissance observations and limited interviews with property owners to identify hazardous waste sites or other areas that may be of concern to ODOT in planning and construction. The reconnaissance of properties within the proposed corridor and surrounding area was performed on foot and by vehicle. This reconnaissance provided a visual overview of the area's drainage and topography; identification of geologic outcrops; the location of other potential points of contamination; and an inventory of existing monitoring wells and readily-identifiable domestic wells, surface waters, and springs. It also allowed visual determination of potential hazardous material sites, exposure pathways, and apparent location of subsurface and overhead utilities. One goal of the site reconnaissance was performance of a visual inspection to the extent allowed of adjoining properties. Field Land Use Evaluation Forms are attached in Exhibit H.

The review of available information revealed sites of potential concern for ODOT highway programs along the corridor. Sites of potential concern were identified during site reconnaissance (as shown on **Figure 1**).

2.7 Limitations and Exceptions of Assessment

This Assessment was prepared by ENERCON specifically for use by ODOT. Use of or reliance upon this information by any other party without express written permission granted by ENERCON and ODOT was not authorized and was completely at the risk of the user.

This report was prepared under constraints of time and the recommended ISA scope, and reflects a limited investigation and evaluation. ENERCON's investigation was performed using the degree of care and skill ordinarily exercised, under similar circumstances, by professional consultants practicing in this or similar localities and no other warranty, expressed or implied, was made.

ENERCON does not claim responsibility for any incorrect information that may have been supplied by agencies, organizations, or individuals that may be included in the findings or recommendations of this report.

ENERCON claims no responsibility for any environmental issues, the detection of which would require examinations beyond the scope of this ISA. Although this study has attempted to identify recognized environmental conditions associated with the proposed highway corridor, potential sources of environmental concern may have been undetected because of the limitations of this study, the inaccuracy of governmental records, or the presence of undetected or unreported environmental accidents.

No environmental site assessment can wholly eliminate uncertainty regarding the potential for environmental conditions concerning a property. This assessment is intended to reduce but not eliminate uncertainty regarding the environmental condition of the property. This assessment was not exhaustive and was limited by the time available and the costs authorized to be expended by the client in completing this assignment. Additional investigation including soil and groundwater testing, as typically included in the Preliminary Site Investigation (PSI) will be required to provide additional insight into the present environmental condition of the property and thereby reduce uncertainties inherent in an ISA.

2.8 Considerations Beyond Scope

Certain conditions were beyond the scope of the ISA and were therefore outside the scope of this assessment, unless specifically addressed in this report. Those conditions included but were not limited to:

- Asbestos
- Endangered Species and Endangered Species Habitat
- Lead Paint and Lead in Drinking Water
- Environmental Permitting Issues
- Radon
- Radioactive Materials under the Jurisdiction of the Nuclear Regulatory Commission
- Safety and OSHA Concerns
- Wetlands and Floodplains

3.0 ENVIRONMENTAL ASSESSMENT SUMMARY OF INVESTIGATION

3.1 Location and Legal Description

The proposed construction project AOI consists of a segment of State Highway 100 (SH-100) covering the northeast bound and southwest bound sides of the Arkansas River Bridge at the Muskogee and Sequoyah County Line. The segment begins 2,000 feet west of the bridge in Webbers Falls, Muskogee County, and ends approximately 1,500 feet east of the bridge in Gore, Sequoyah County. The AOI is

generally characterized by SH-100, native grass and tree covered vacant land, agricultural land, a portion of Consolidated Grain and Barge Company's parking lot, and a portion of North Sand Watie Boulevard. 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 corridor ROW tis shown on the site map (see **Exhibit B**, **Figure 1**).

The corridor includes Section 13 of Township 12 North, Range 20 East, and Sections 7 and 12 of Township 12 N, Range 21 East. A topographic map of the subject area is included in **Exhibit B, Figure 2**.

3.2 Descriptions of Structures, Roads, and Other Improvements

Roadways intersecting or along the SH-100 corridor were predominantly constructed of concrete, asphalt, or gravel.

Properties adjoining the AOI include the Gore Nursing Center, Gore Cemetery, Consolidated Grain and Barge, Co., agricultural property, Webbers Falls Municipal Complex, Webbers Falls City Park, Summers Ferry Park, single family residential properties, vacant land, and the Arkansas River and high flood waters.

The AOI is located within both 100- and 500-year flood zones. According to the USGS National Water Information System, the flood stage of the Arkansas River near Webbers Falls is 28 feet. On the day of reconnaissance (June 26, 2019), the gage height of the Arkansas River was reported to be 30 feet at the closest regulating station (Muskogee, MKGO2). The discharge at this station was reported to be 160,000 cubic feet per second. According to the USGU National Water Information System, the mean daily discharge statistic for the past 15 years is approximately 11,000. Evidence of substantial flooding was visible in Webbers Falls. At the time of reconnaissance, FEMA was clearing the southeast adjoining neighborhood. Webbers Falls City Park was submerged past Park Street. Several roads were impassible due to remaining high floodwaters and debris.

3.3 Information Reported Regarding Environmental Lien or Specialized Knowledge or Experience

Based upon review of environmental databases and local regulatory agencies, no environmental liens were reported on any of the properties, and property owners that reported specialized knowledge or experience of environmental conditions are provided within this ISA Report.

3.4 Known Hazardous Waste Sites - Records Review

ENERCON retained EDR to provide a database report of both federal and state environmental records, using ASTM 1527-05 radius guidelines. The results of the appropriate database searches are discussed in the Subsection below. The database report is included as **Exhibit F**.

3.4.1 NPL - National Priorities List

The National Priorities List (NPL) is the United States Environmental Protection Agency (USEPA) database of uncontrolled or abandoned hazardous waste sites identified for priority remedial actions under the Superfund Program. A site must meet or surpass a predetermined hazard ranking system score, be chosen as a state's top priority site, or meet three specific criteria set jointly by the United States Department of Health and Human Services and the USEPA to become an NPL site.

The database search identified no NPL or Delisted NPL sites within a one (1) mile radius of the corridor.

3.4.2 SPL - State Equivalent Priority List

This database is the state equivalent of the NPL database and is provided and maintained by the ODEQ.

The database search identified no SPL sites within a one (1) mile radius of the corridor.

3.4.3 CORRACTS - RCRA Corrective Actions and Associated TSD

The USEPA maintains this database of Resource Conservation and Recovery Act (RCRA) facilities that are undergoing "corrective action". A "corrective action order" is issued pursuant to RCRA Section 3008 (h) when there has been a release of hazardous waste or constituents into the environment from a RCRA facility. Corrective actions may be required beyond the facility's boundary and can be required regardless of when the release occurred, even if it predates RCRA.

The CORRACTS database search identified no sites within a one (1) mile radius of the corridor.

3.4.4 CERCLIS List

The EPA Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Information Service (CERCLIS) serves to track sites that have come to the USEPA's attention as having the potential for releasing hazardous substances into the environment. Appearance on the CERCLIS list does not necessarily indicate a release has occurred or a significant risk that a release will occur. The results of the CERCLIS database search are provided in Exhibit F.

The database search identified no CERCLIS sites within a 0.5-mile radius of the corridor.

3.4.5 CERCLIS/NFRAP List

As previously stated in Section 3.4.4, appearance on the CERCLIS list does not necessarily indicate a release has occurred or a significant risk that a release will occur. No Further Remedial Action Planned (NFRAP) sites may be sites where, following an initial investigation, no contamination was found, was removed quickly, or was not serious enough to require Federal Superfund action. The results of the CERCLIS/NFRAP database search are given in Exhibit F.

The database search identified no sites were found within one (1) mile radius of the search corridor.

3.4.6 RCRA-TSD - RCRA Permitted Treatment, Storage, Disposal Facilities

The USEPA's RCRA program identifies and tracks hazardous waste from point of generation to point of disposal. The database is a compilation by the USEPA of facilities reporting generation, storage, transportation, treatment, or disposal of hazardous waste.

No reported RCRA-TSD sites were found within one (1) mile radius of the search corridor.

3.4.7 SWLF – Solid Waste Landfill

Database searches for solid waste landfills were conducted through the USGS and ODEQ, Solid Waste Management Service.

No reported SWLF sites were found within one (1) mile radius of the search corridor.

Although there are no SWLF sites reported, one IHS OPEN DUMP site was reported. The Cherokee Sand Plant Road Dump is located approximately 0.3 miles east of the AOI. The plant is actively used as a solid waste disposal site and is reported to be a 4-acre open surface dump. No complaints or violations were reported for this site. Based on the distance and topographic gradient from the AOI, ENERCON does not consider the Cherokee Sand Plant Road Dump an environmental concern to the AOI.

3.4.8 LUST / LAST - Leaking Underground / Aboveground Storage Tanks

The database search was provided by the OCC UST/AST Department. The OCC maintains an inventory of known leaking underground storage tanks (LUSTs) sites located within the state.

The database search identified one (1) LUST site and one (1) LAST site within a 0.25-mile radius of the AOI.

Gore Bait and Tackle (304 South Main in Gore, OK) – This site is located approximately 722 feet northeast of the AOI and is listed on the environmental database as a LAST, AST, UST, and HIST UST site. According to the Oklahoma Corporation Commission (OCC) Petroleum Storage Tank (PST) database, this location previously maintained three (5) USTs as follows:

Tank ID	Capacity and Contents	Year Installed	Status
1	6,000-gallon gasoline UST	1983	Tank removed from ground
2	2,000-gallon diesel UST	1983	Tank removed from ground
3	8,000-gallon gasoline UST	1983	Tank removed from ground
4	14,000-gallongasoline UST	2002	Currently in use
5	4,000-gallon diesel UST	2003	Currently in use

According to the environmental database a confirmed UST release occurred in 2007. The confirmed release case (OCC #064-3236) was closed in July 2010. A suspicion of release was also reported in 2007. The suspicion of release case (OCC #SOR-3236) was closed in 2007. Based on the distance of the estimated benzene plume from the AOI and the relative topographic gradient to the AOI, ENERCON considers this confirmed AST release a low environmental concern to the AOI.

Gore Sav-On Gas (204 South Main in Gore, OK) – This site is located approximately 0.2 miles northeast of the AOI and is listed on the environmental database as a LUST, UST, and HUST site. According to the Oklahoma Corporation Commission (OCC) Petroleum Storage Tank (PST) database, this location previously maintained two (2) USTs as follows:

Tank ID	Capacity and Contents	Year Installed	Status
1	8,000-gallon gasoline UST	1972	Tank removed from ground
2	6,000-gallon gasoline UST	1972	Tank removed from ground

According to the environmental database a confirmed release occurred in February 2009. The case (OCC #064-3466) was closed in August 2010. Based on the distance of the site from the AOI, ENERCON does not consider this confirmed release an environmental concern to the AOI.

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3.4.9 UST/AST – Underground Storage Tank/Aboveground Storage Tank

The database search was provided by the OCC UST Program. The OCC maintains an inventory of known UST sites located within the state.

The database search identified one (1) AST and two (2) UST sites within a 0.25-mile radius of the AOI.

Hit & Run (209 SH-100 in Webbers Falls, OK) – This site is located approximately 0.016 miles southeast of the AOI and is listed on the environmental database as a UST site. According to the Oklahoma Corporation Commission (OCC) Petroleum Storage Tank (PST) database, this location maintains three (3) USTs as follows:

Tank ID	Capacity and Contents	Year Installed	Status
1	8,000-gallon gasoline	1976	Temporarily out of use
2	3,000-gallon gasoline	1976	Temporarily out of use
3	3,000-gallon gasoline	1976	Temporarily out of use

According to the environmental database, no leaks or spills have been reported.

Gore Bait and Tackle (304 South Main in Gore, OK) – This site is located approximately 722 feet northeast of the AOI and is listed on the environmental database as a LAST, AST, UST, and HIST

UST site. According to the Oklahoma Corporation Commission (OCC) Petroleum Storage Tank (PST) database, this location previously maintained three (5) USTs as follows:

Tank ID	Capacity and Contents	Year Installed	Status
1	6,000-gallon gasoline UST	1983	Tank removed from ground
2	2,000-gallon diesel UST	1983	Tank removed from ground
3	8,000-gallon gasoline UST	1983	Tank removed from ground
4	14,000-gallongasoline UST	2002	Currently in use
5	4,000-gallon diesel UST	2003	Currently in use

According to the environmental database a confirmed UST release occurred in 2007. The confirmed release case (OCC #064-3236) was closed in July 2010. A suspicion of release was also reported in 2007. The suspicion of release case (OCC #SOR-3236) was closed in 2007. Based on the distance of the estimated benzene plume from the AOI and the relative topographic gradient to the AOI, ENERCON considers this confirmed AST release a low environmental concern to the AOI.

Gore Sav-On Gas (204 South Main in Gore, OK) – This site is located approximately 0.2 miles northeast of the AOI and is listed on the environmental database as a LUST, UST, and HUST site. According to the Oklahoma Corporation Commission (OCC) Petroleum Storage Tank (PST) database, this location previously maintained two (2) USTs as follows:

Tank ID	Capacity and Contents	Year Installed	Status
1	8,000-gallon gasoline UST	1972	Tank removed from ground
2	6,000-gallon gasoline UST	1972	Tank removed from ground

According to the environmental database a confirmed release occurred in February 2009. The case (OCC #064-3466) was closed in August 2010. Based on the distance of the site from the AOI, ENERCON does not consider this confirmed release an environmental concern to the AOI.

3.4.10 **ERNS – Emergency Response Notification System**

The ERNS is a national database containing records from October 1986 to the release date and is used to collect information for reported releases of oil and hazardous substances. The database contains information from spill reports made to federal authorities including USEPA, the United States Coast Guard, the National Response Center, and the Department of Transportation.

The database search identified no ERNS sites within one (1) mile radius of the search corridor.

3.4.11 **RCRA-LgGen – Large Quantity Generator**

The USEPA's RCRA program identifies and tracks hazardous waste from point of generation to point of disposal. The database is a compilation by the USEPA of facilities reporting generation, storage, transportation, treatment, or disposal of hazardous waste. RCRA large generators are facilities that

generate at least 1,000 kilograms (kg) per month of non-acutely hazardous waste (or 1 kg of acutely hazardous waste).

The database search identified no RCRA-LgGen sites within one (1) mile radius of the search corridor.

3.4.12 RCRA-SQG – Small Quantity Generator

The database is a compilation by the USEPA of facilities reporting generation, storage, transportation, treatment, or disposal of hazardous waste. RCRA small and very small generators are facilities that generate less than 1,000 kilograms (kg) per month of non-acutely hazardous waste.

The database search identified no RCRA-CESQG sites within a one (1) mile radius of the search corridor:

3.4.13 United States Brownfields

The USEPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities, especially those without USEPA Brownfields Assessment Demonstration Pilots, minimize the uncertainties of contamination often associated with Brownfields. Under the TBA, the USEPA provides funding and/or technical assistance for environmental assessments at Brownfields sites throughout the country. TBAs supplement and work with other efforts under the USEPA's Brownfields Initiative to promote cleanup and redevelopment of Brownfields.

The database search identified no Brownfields sites within a one (1) mile radius of the search corridor.

3.4.14 Oil and Gas Records

The Oklahoma Corporation Commission (OCC) was contacted to determine if there were complaints or spills reported within the surrounding corridor area.

No complaints or spills were reported for the AOI. No oil and gas wells were near the AOI. ENERCON does not consider well sites to be a potential environmental concern to the AOI corridor.

An OCC map of the subject area is included in **Exhibit G**.

3.4.15 Historical Sanborn Maps

Sanborn Map coverage was available for portions of the AOI. No additional RECs were identified from review of these maps.

3.5 Indications of Polychlorinated Biphenyls

Polychlorinated biphenyls (PCBs) are mixtures of synthetic organic chemicals with the same basic chemical structure and similar physical properties ranging from oily liquids to waxy solids. Due to

their non-flammability, chemical stability, high boiling point, and electrical insulating properties, PCBs were used in hundreds of in, dustrial and commercial applications including electrical, heat transfer, and hydraulic equipment; as plasticizers in paints, plastics, and rubber products; in pigments, dyes, and carbonless copy paper and many other applications. More than 1.5 billion pounds of PCBs were manufactured in the United States prior to cessation of production in 1977.

Concern over the toxicity and persistence in the environment of PCBs led Congress in 1976 to enact §6(e) of the Toxic Substances Control Act (TSCA) that included among other things, prohibitions on the manufacture, processing, and distribution in commerce of PCBs. Thus, TSCA legislated true "cradle to grave" (i.e., from manufacture to disposal) management of PCBs in the United States.

A PCB transformer is a transformer that contains PCBs at concentrations greater than 500 parts per million (ppm). PCBs were used in electrical transformers because of their useful quality as being a fire retardant. These transformers were manufactured between 1929 and 1977. The majority of these PCB transformers were installed in apartments, residential and commercial buildings, industrial facilities, campuses, and shopping centers constructed before 1978. The USEPA regulates the use, storage, and disposal of PCB transformers. PCB-contaminated transformers containing between 50 and 499 ppm of PCBs are also subject to USEPA regulations.

In addition, fluorescent light ballasts manufactured before 1978 or which are not stamped: "NO PCBs" should be considered PCB fluorescent light ballasts (PCB ballasts) because the small capacitor included as one component of the ballast probably contains PCBs.

Approximately four (4) pole-mounted transformers were observed along the project AOI. The transformers were observed to be in fair to good condition. No leaking or staining was observed from the transformers at the time of the site visit.

3.6 Current and Past Uses of Adjoining Property

Investigations into the current and past uses of the adjoining properties were limited to the visual site reconnaissance, historical city directories, and examination of aerial photographs.

Current:

The AOI consists of a segment of State Highway 100 (SH-100) covering the northeast bound and southwest bound sides of the bridge crossing the Arkansas River at the Muskogee and Sequoyah County Line. The segment begins 2,000 feet west of the bridge in Webbers Falls, Muskogee County, and ends approximately 1,500 feet east of the bridge in Gore, Sequoyah County. The AOI is generally characterized by SH-100, native grass and tree covered vacant land, agricultural land, a portion of Consolidated Grain and Barge Company's parking lot, and a portion of North Sand Watie Boulevard.

The AOI is adjoined by the Gore Nursing Center, Gore Cemetery, Consolidated Grain and Barge, Co., agricultural property, Webbers Falls Municipal Complex, Webbers Falls City Park, Summers Ferry Park, single family residential properties, vacant land, and the Arkansas River and associated flood waters.

Historical (Past Uses):

Historically, properties along the AOI included undeveloped land, agricultural land, and residential properties. According to the 1948, 1950, 1974, and 1979 topographic map, an additional cemetery south of the Arkansas Ricker in Webbers Falls was present. According to the aerial photographs, the Arkansas River Bridge was constructed prior to 1971. Commercial development in both Webbers Falls and Gore increased during the late 1970s and early 1980s. Consolidated Grain and Barge Co. was constructed Norwest of the AOI by 1995.

4.0 SITE AND VICINITY CHARACTERISTICS

The AOI consists of a segment of State Highway 100 (SH-100) covering the northeast bound and southwest bound sides of the bridge crossing the Arkansas River at the Muskogee and Sequoyah County Line. The segment begins 2,000 feet west of the bridge in Webbers Falls, Muskogee County, and ends approximately 1,500 feet east of the bridge in Gore, Sequoyah County. The AOI is generally characterized by SH-100, native grass and tree covered vacant land, agricultural land, a portion of Consolidated Grain and Barge Company's parking lot, and a portion of North Sand Watie Boulevard.

Historically, properties along the AOI included undeveloped land, agricultural land, and residential properties. According to the 1948, 1950, 1974, and 1979 topographic map, an additional cemetery south of the Arkansas Ricker in Webbers Falls was present. According to the aerial photographs, the Arkansas River Bridge was constructed prior to 1971. Commercial development in both Webbers Falls and Gore increased during the late 1970s and early 1980s. Consolidated Grain and Barge Co. was constructed northwest of the AOI by 1995.

4.1 Topography

Elevation along the corridor ranged from approximately 460 to 480 feet above mean sea level (according to the Webbers Falls 2012, Oklahoma USGS topographic quadrangle). Generally, topographic relief to the northwest was higher. Regional topographic relief was generally to the east. Site specific localized topography appeared to be generally the same as the regional relief with few exceptions.

4.2 Groundwater Characteristics/Groundwater Wells

The direction and hydraulic gradient of subsurface groundwater flow in the immediate area was unknown. However, surface topography can often be used as an indicator of the shallow groundwater flow direction. From surface topography it appeared the shallow groundwater would locally flow

toward the Arkansas River, small tributaries, drainage ditches, and topographic lows. Regional groundwater flow direction covering the scope of this project would be toward the east.

Generally, potentially hazardous waste sites adjoining the proposed AOI to the south and east would not likely impact the AOI because contaminants would move east away from the AOI. For similar reasons, potentially hazardous waste sites adjoining the proposed AOI to the north and west would more likely impact the AOI. However, site specific topography can influence these exceptions.

ENERCON researched groundwater well information for the AOI from the USGS website database and the OWRB website database (**Exhibit E**). OWRB geotechnical boring well records were found near the AOI corridor. An OWRB well map is included in **Exhibit E**.

4.3 Local Geology

The Oklahoma Geologic Survey's Map of the Muskogee 7.5-Minute Quadrangle was reviewed to determine subsurface geologic characteristics. The Arkansas River, a perennial river, and major tributary of the Mississippi River, is surrounded by land subject to inundation. Beneath this land are primarily the Atoka Formation (IPat) and Alluvium (Qal).

The Middle Pennsylvanian Atoka Formation consists mainly of shale, siltstone, and thin limestone. The Holocene age Alluvium in this area consists of sand, clay and gravel that can be as much as 50 feet thick. This type of alluvium is only shown along major streams and tributaries.

Mean annual precipitation of the AOI area is approximately 46 inches per year with the wet seasons recognized as May - June and September - October.

A Geologic Map map of the subject area is included in **Exhibit B, Figure 3**. A Soil Map of the subject area is included in **Exhibit B, Figure 4**.

5.0 FINDINGS AND RECOMMENDATIONS

Summarized below are the major findings from this Initial Site Assessment and appropriate recommendations.

Gore Bait and Tackle (304 South Main in Gore, OK) – This site is located approximately 722 feet northeast of the AOI and is listed on the environmental database as a LAST, AST, UST, and HIST UST site. According to the Oklahoma Corporation Commission (OCC) Petroleum Storage Tank (PST) database, this location previously maintained three (3) ASTs and currently maintains two (2) USTs. According to the environmental database a confirmed AST release occurred in 2007. The confirmed release case (OCC #064-3236) was closed in July 2010. A suspicion of release was also reported in 2007. The suspicion of release case (OCC #SOR-3236) was closed in 2007. Based on the distance of the estimated benzene plume from the AOI and the relative topographic gradient to the AOI, the confirmed AST release at this site is considered a low environmental concern to the AOI.

Recommendation *– ENERCON considers this potential subsurface soil and groundwater contamination from the benzene plume from the AST release an environmental concern. Based on the distance of the site and estimated plume from the AOI, ENERCON considers this a low risk site. If ODOT needs additional information relating to the potential impact to her ROW, ENERCON recommends a review of historical OCC documents and a limited subsurface evaluation.*

Utility Lines in Corridor

Overhead electrical lines and associated 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.*

EXHIBIT A

Contacts and Potential Environmental Hazards

TABLE 1
CONTACTS
SH-100: ARKANSAS RIVER BRIDGE
MUSKOGEE & SEMINOLE COUNTIES, OKLAHOMA
ENERCON PROJECT CP&Y~00003

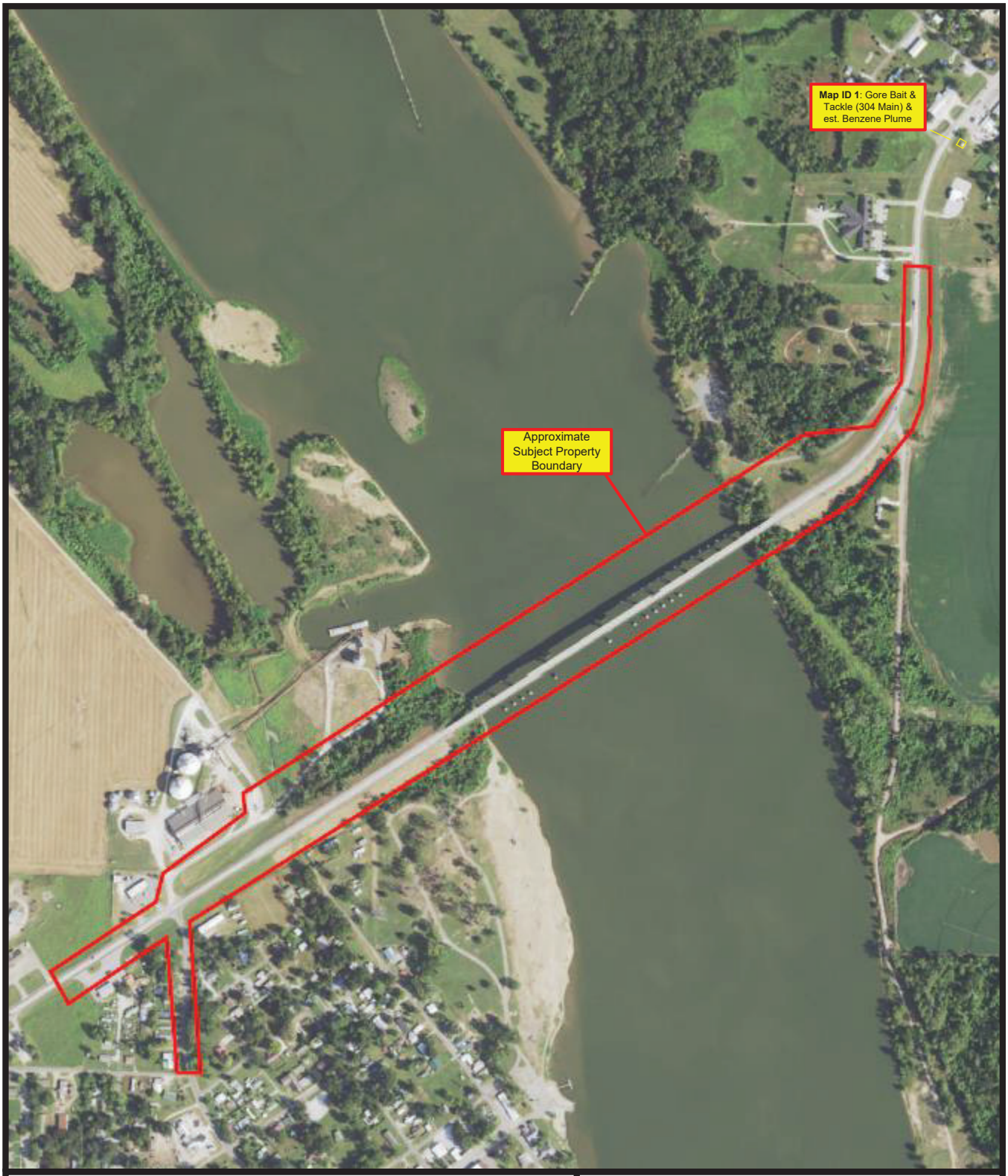
Contact Name	*Contact Phone #*	*Site*	*Site Address*	*Affiliation*	*Notes*
Gore Bait & Tackle, David & Peggy Sullivan	918-489-2424	Fishing Store, Convenience Store, Gas Station	304 South Main Street, Gore OK	Owner / Operator	LAST, AST, UST, HUST site
ONEOK NGL Pipeline LLC	811	Adjoining Utilities	NA	Owner / Operator	Observed Utilities
(Oklahoma Water Resources Board (OWRB)	405-530-8800	Adjoining Groundwater Well Sites	NA	State Department of Environment	Adjoining Groundwater Well Sites

TABLE 2
POTENTIAL ENVIRONMENTAL HAZARDS
SH-100: ARKANSAS RIVER BRIDGE
MUSKOGEE & SEMINOLE COUNTIES, OKLAHOMA
ENERCON PROJECT NO. CP&Y~00003

Map I.D.	*BUSINESS*	*ADDRESS*	*TYPE OF OPERATION*	*ACTIVE/ CLOSED*	*ENVIRONMENTAL CONCERN*	*POTENTIAL CONSTITUENTS/ CONTAMINANTS*	*COMMENTS*	*POSITION RELATIVE TO ROW*	*RELATIVE ELEVATION*	*EXPECTED GW FLOW DIR.*	*LEVEL OF CONCERN*
1	Gore Bait & Tackle	304 South Main, Gore OK	Fishing Store, Convenience Store, Gas Station	Active	LAST / AST / UST / HIST UST	Gasoline, Diesel	Reported AST release	Northeast	Upgradient	South-southwest	Low

EXHIBIT B

Topographic, Geologic, and Site Maps



Enercon Services, Inc.
1601 NW Expressway, Ste. 1000
Oklahoma City, OK 73118
www.enercon.com
405.722.7693 405.722.7694 (fax)

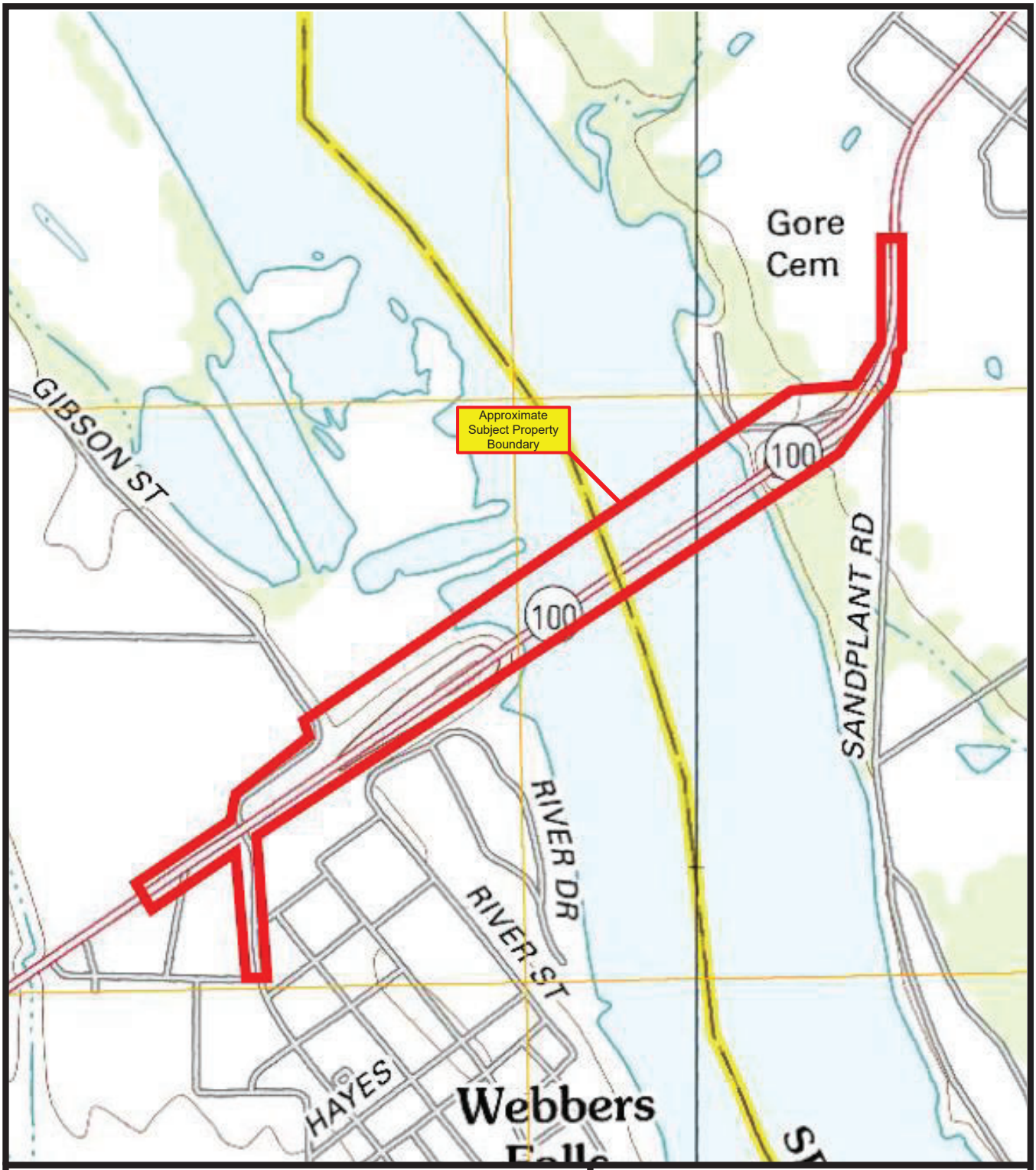
Prepared for: ODOT
Project: CP&Y~00003
Source: 2017 Aerial Photograph

Site Map

SH-100 ARKANSAS RIVER BRIDGE

Muskogee and Sequoyah Counties, Oklahoma

Figure 1



Enercon Services, Inc.
1601 NW Expressway, Ste. 1000
Oklahoma City, OK 73118
www.enercon.com
405.722.7693 405.722.7694 (fax)

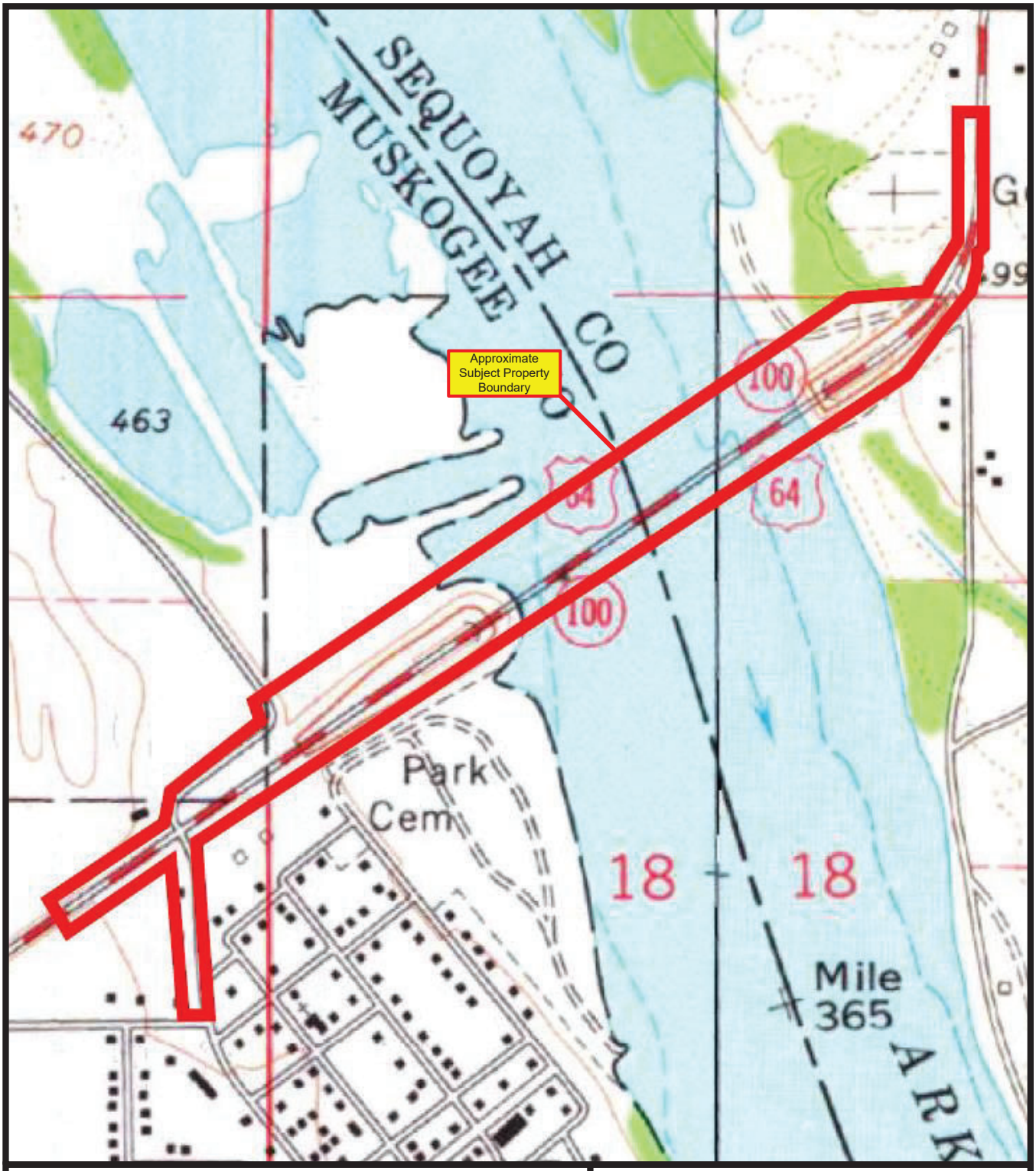
Prepared for: ODOT
Source: 2012 Webbers Falls 30 x 60-minute Quadrangle (OGS)
Project: CP&Y~00003

2012 Topographic Map (USGS)

SH-100 ARKANSAS RIVER BRIDGE

Muskogee and Sequoyah Counties, Oklahoma

Figure 2



Enercon Services, Inc.
1601 NW Expressway, Ste. 1000
Oklahoma City, OK 73118
www.enercon.com
405.722.7693 405.722.7694 (fax)

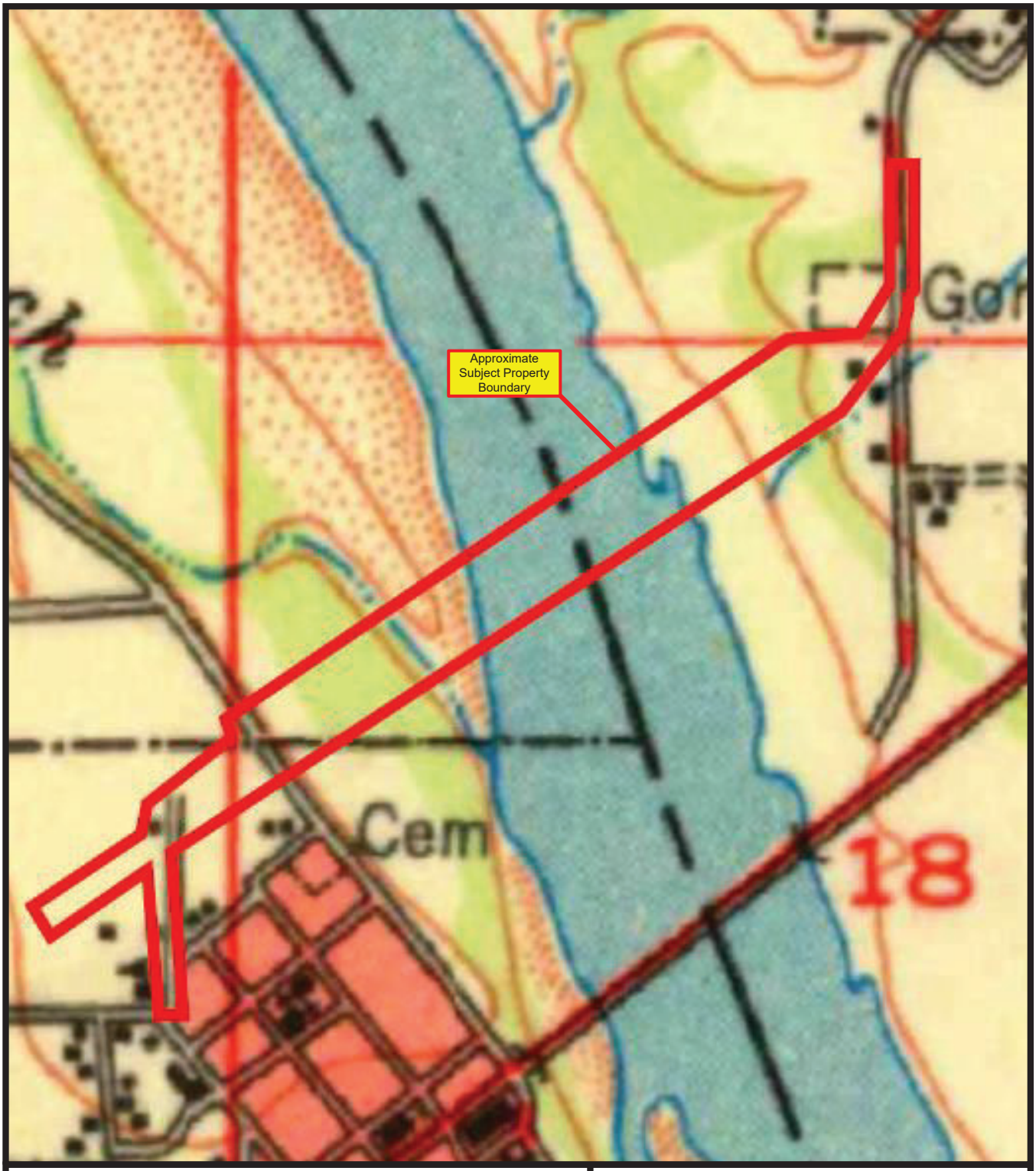
Prepared for: ODOT
Source: 1974, 1979 Webbers Falls **30 x 60-minute Quadrangle** (OGS)
Project: CP&Y~00003

1974, 1979 Topographic Map (USGS)

SH-100 ARKANSAS RIVER BRIDGE

Muskogee and Sequoyah Counties, Oklahoma

Figure 2A



Enercon Services, Inc.
1601 NW Expressway, Ste. 1000
Oklahoma City, OK 73118
www.enercon.com
405.722.7693 405.722.7694 (fax)

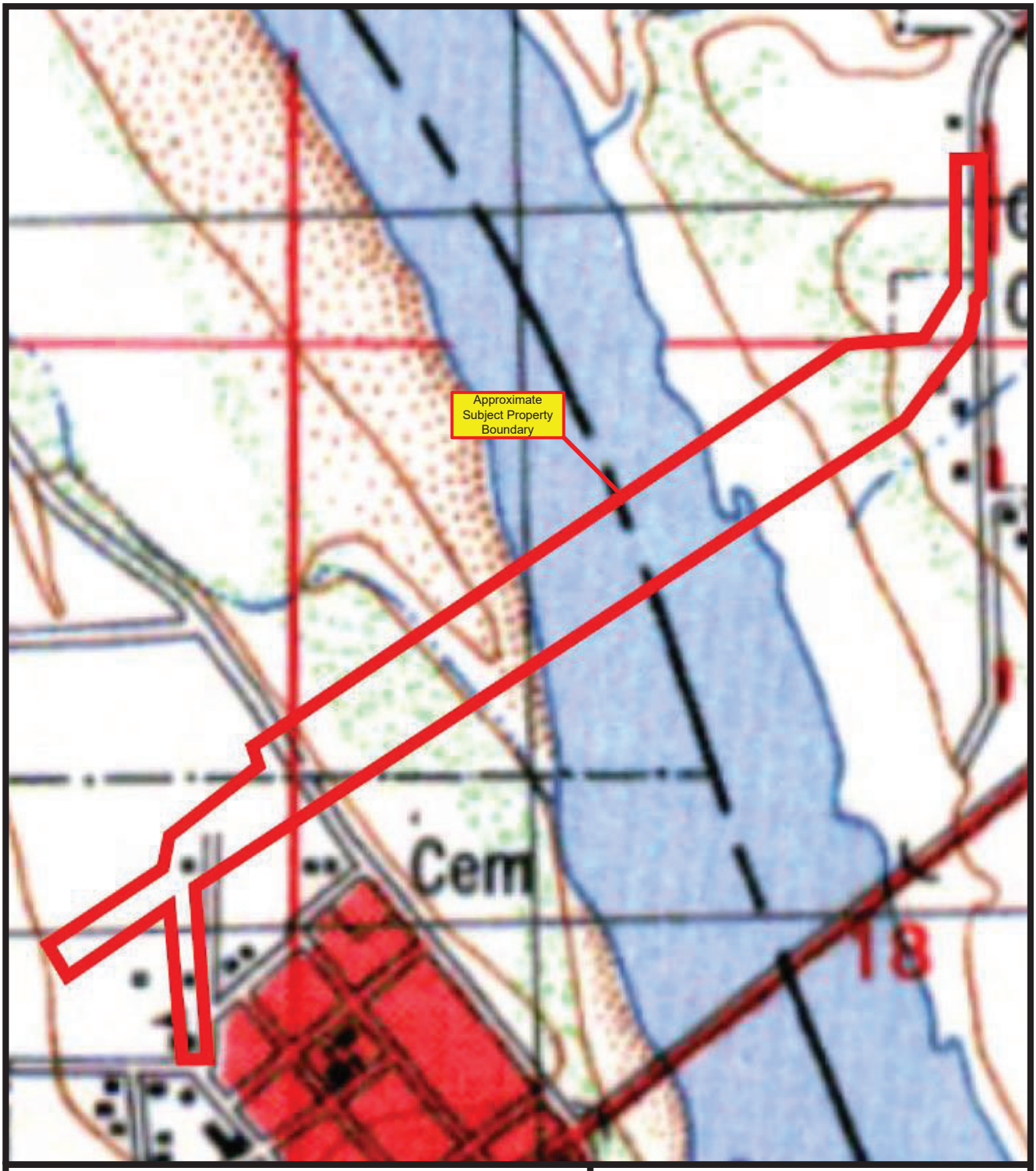
Prepared for: ODOT
Source: 1950 Webbers Falls 30 x 60-minute Quadrangle (OGS)
Project: CP&Y~00003

1950 Topographic Map (USGS)

SH-100 ARKANSAS RIVER BRIDGE

Muskogee and Sequoyah Counties, Oklahoma

Figure 2B



Enercon Services, Inc.
1601 NW Expressway, Ste. 1000
Oklahoma City, OK 73118
www.enercon.com
405.722.7693 405.722.7694 (fax)

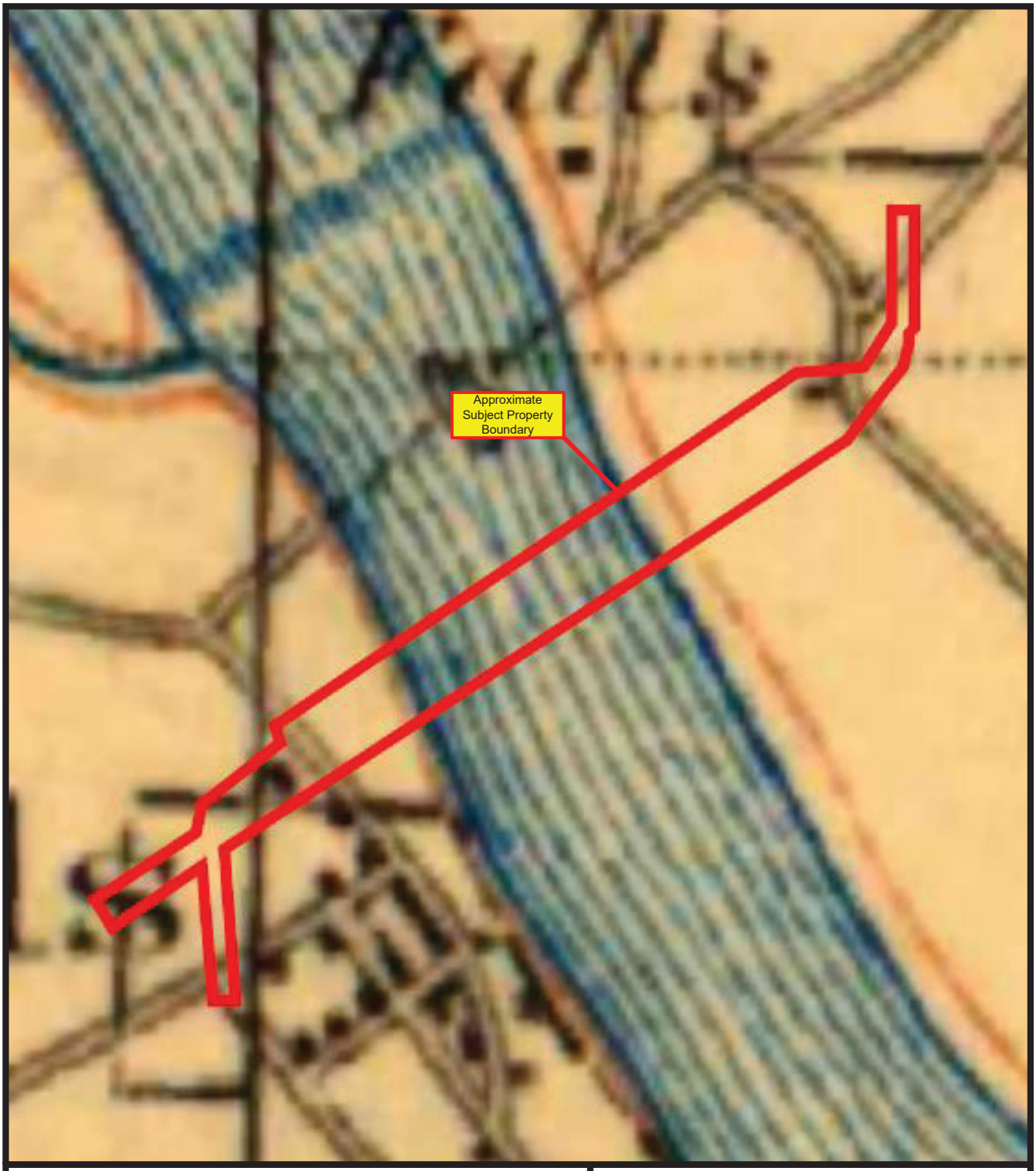
Prepared for: ODOT
Source: 1948 Webbers Falls 30 x 60-minute Quadrangle (OGS)
Project: CP&Y~00003

1948 Topographic Map (USGS)

SH-100 ARKANSAS RIVER BRIDGE

Muskogee and Sequoyah Counties, Oklahoma

Figure 2C



Enercon Services, Inc.
1601 NW Expressway, Ste. 1000
Oklahoma City, OK 73118
www.enercon.com
405.722.7693 405.722.7694 (fax)

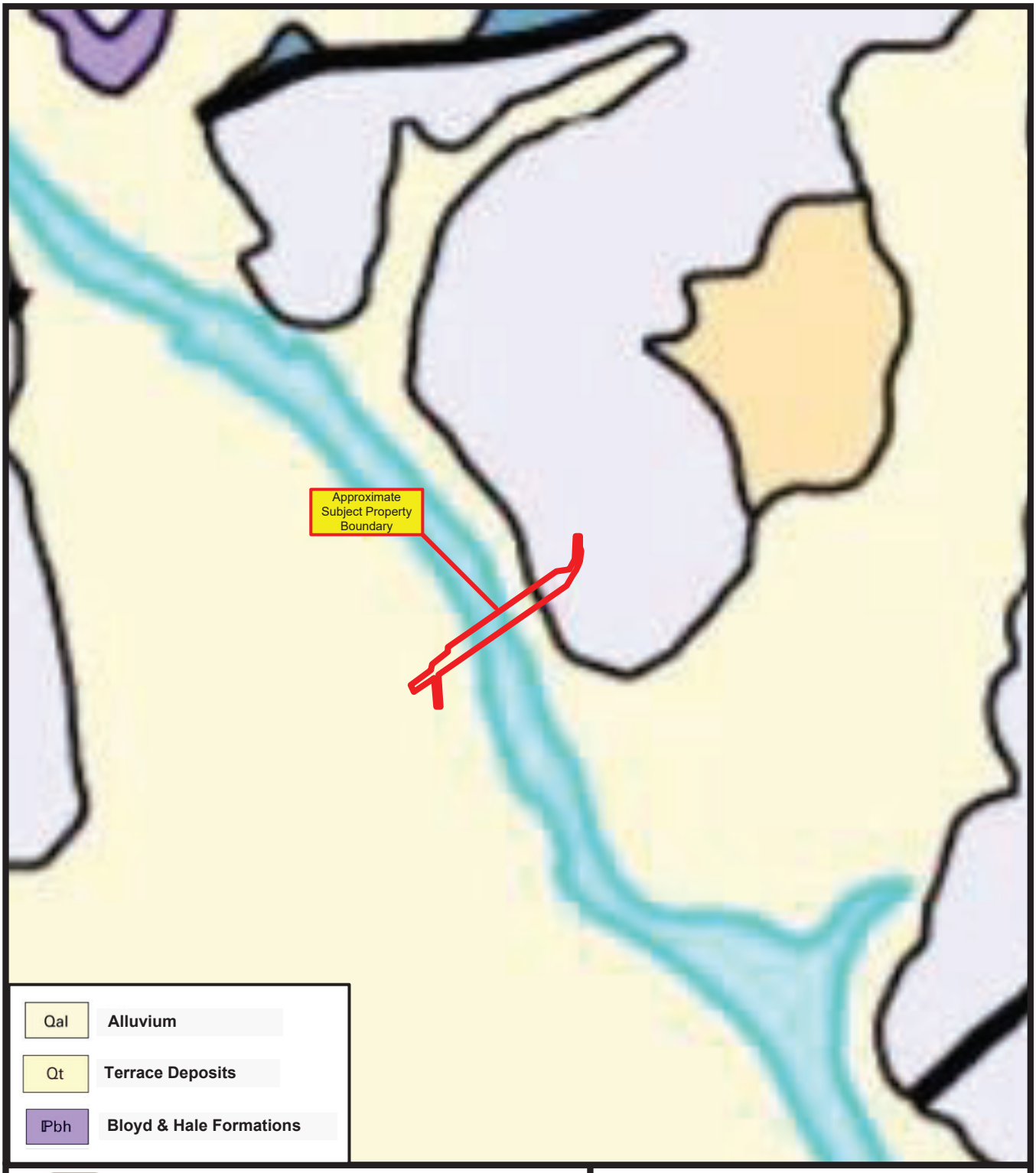
Prepared for: ODOT
Source: 1901 Muskogee 30 x 60-minute Quadrangle (OGS)
Project: CP&Y~00003

1900, 1901 Topographic Map (USGS)

SH-100 ARKANSAS RIVER BRIDGE

Muskogee and Sequoyah Counties, Oklahoma

Figure 2D



Enercon Services, Inc.
1601 NW Expressway, Ste. 1000
Oklahoma City, OK 73118
www.enercon.com
405.722.7693 405.722.7694 (fax)

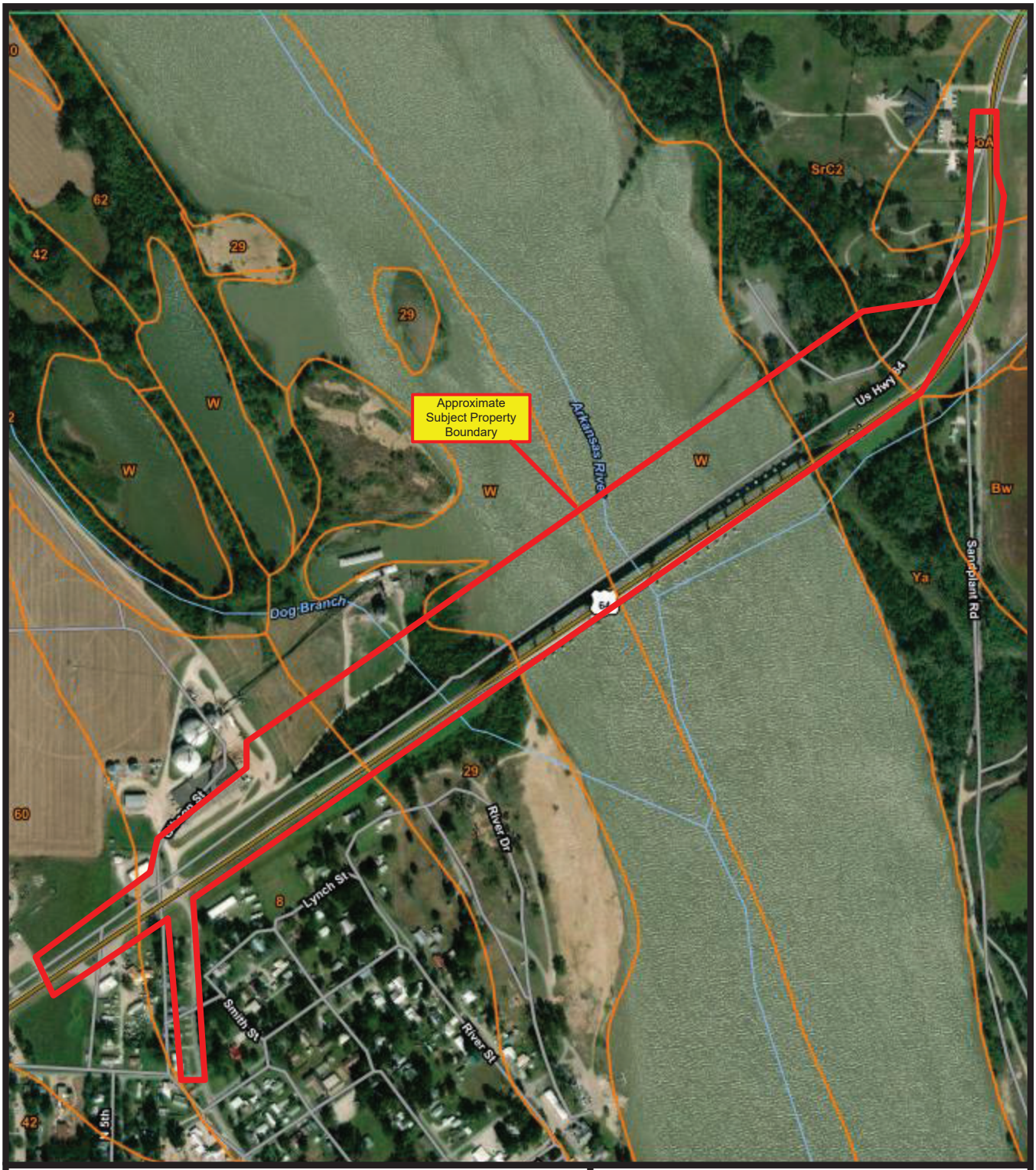
GEOLOGIC MAP
Guymon 30 x 60-minute Quadrangle

SH-100 ARKANSAS RIVER BRIDGE

Muskogee and Sequoyah Counties, Oklahoma

Prepared for: ODOT
Source: Geologic Map of the Muskogee 7.5' Quadrangle
Project: CP&Y~00003

Figure 3



Enercon Services, Inc.
1601 NW Expressway, Ste. 1000
Oklahoma City, OK 73118
www.enercon.com
405.722.7693 405.722.7694 (fax)

Prepared for: ODOT
USDA Web Soil Survey
Project: CP&Y~00003

SOIL MAP

SH-100 ARKANSAS RIVER BRIDGE

Muskogee and Sequoyah Counties, Oklahoma

Figure 4



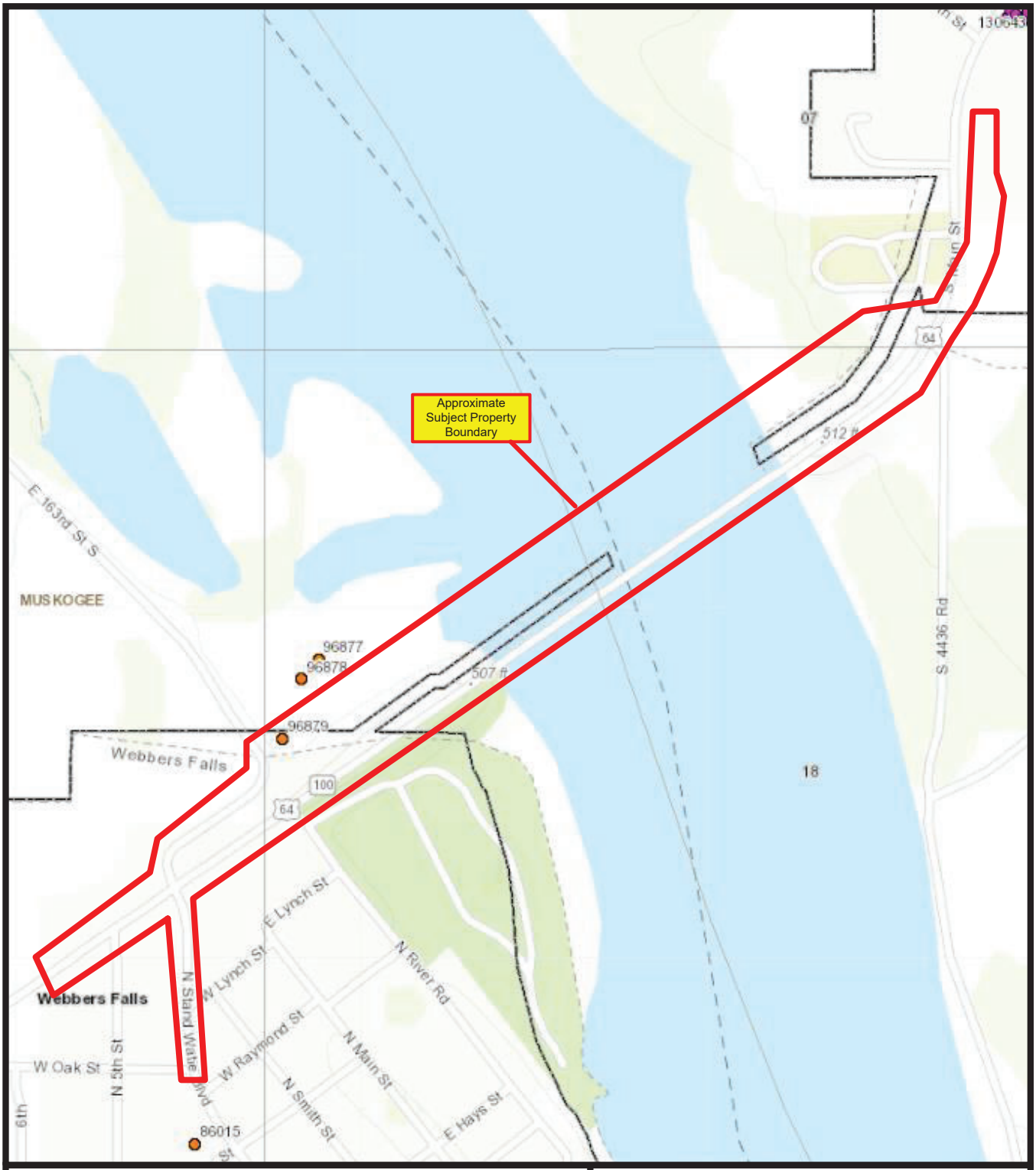
Enercon Services, Inc.
1601 NW Expressway, Ste. 1000
Oklahoma City, OK 73118
www.enercon.com
405.722.7693 405.722.7694 (fax)

Prepared for: ODOT
Project: CP&Y~00003

Oklahoma Corporation Commission (OCC) Corridor Well Map

SH-100 ARKANSAS RIVER BRIDGE

Muskogee and Sequoyah Counties, Oklahoma



Enercon Services, Inc.
1601 NW Expressway, Ste. 1000
Oklahoma City, OK 73118
www.enercon.com
405.722.7693 405.722.7694 (fax)

Prepared for: ODOT
Project: CP&Y~00003

Oklahoma Water Resources Board (OWRB) Corridor Well Map

SH-100 ARKANSAS RIVER BRIDGE

Muskogee and Sequoyah Counties, Oklahoma

EXHIBIT C

Site Photographs

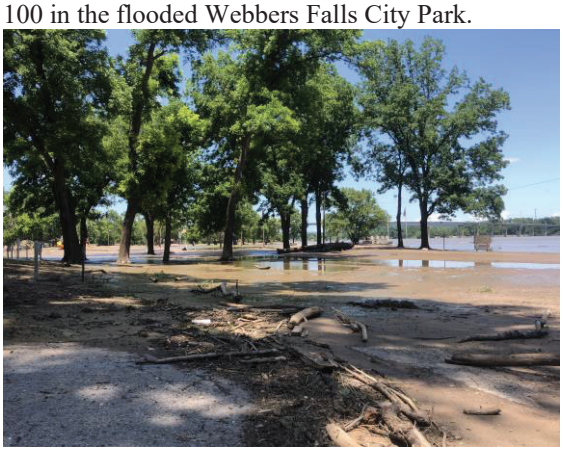
PHOTOGRAPHIC DOCUMENTATION



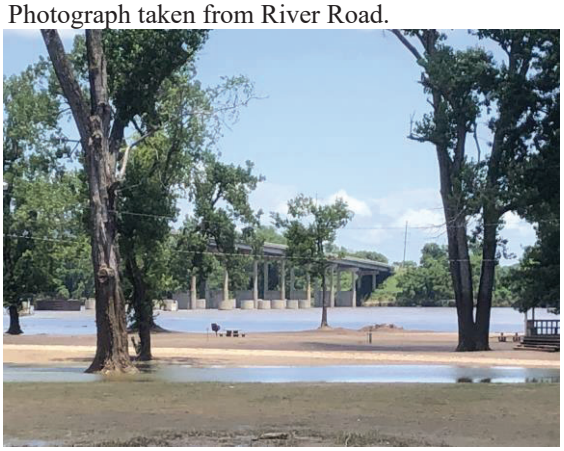
1. View looking north at the Arkansas River Bridge. Photograph taken from the east side of SH-100 in the flooded Webbers Falls City Park.



2. View looking northeast at the Arkansas River and the flooded Webbers Falls City Park. Photograph taken from River Road.



3. View looking northwest at the flooded Webbers Falls City Park. Photograph taken from River Road east of SH-100.



4. View looking northwest at the Arkansas River Bridge. Photograph taken from the east side of SH-100 in Webbers Falls City Park near East Raymond.



5. View looking northwest at southeast adjoining flooded residential properties in Webbers Falls. Photograph taken from River Road.



6. View looking northeast at southeast adjoining flooded residential properties in Webbers Falls. Photograph taken from River Road.

PHOTOGRAPHIC DOCUMENTATION



7. View looking north at residential and recreational flooding adjoining the AOI to the southeast in Webbers Falls. Photograph taken from River Road.



8. View looking northeast at the northeast bound side of the AOI. Photograph taken at the corner of SH-100 and Standwaite Blvd in Webbers Falls.



9. View looking northwest at the southeast adjoining storage facility located at SH-100 and Standwaite Blvd in Webbers Falls.



10. View looking northwest at the Arkansas River Bridge. Photograph taken from the east side of SH-100 in Webbers Falls City Park near East Raymond.



11. View looking north at southwest adjoining Consolidated Grain & Barge Co. Photograph taken from the west side of SH-100 on Standwaite Blvd.



12. View looking north at southwest adjoining Consolidated Grain & Barge Co. Photograph taken from the Consolidated Grain parking lot.

PHOTOGRAPHIC DOCUMENTATION



13. View looking north at southwest adjoining Consolidated Grain & Barge Co. Photograph taken from the Consolidated Grain driveway.



14. View looking north at the southwest bound side of SH-100. Photograph taken from the Consolidated Grain driveway.



15. View looking northwest at the northeast bound side of SH-100. Photograph taken from the south side of SH-100 at Standwaite Blvd.



16. View looking northwest at the Arkansas River. Photograph taken from the SH-100 Arkansas River Bridge.



17. View looking southwest at SH-100. Photograph taken from the northeast side of the Arkansas River Bridge in Gore.



18. View looking northeast at south at SH-100. Photograph taken near Sandplant Road in Gore.

PHOTOGRAPHIC DOCUMENTATION



19. View looking west at Summers Ferry Park in Gore. Closed due to flooding. Photograph taken from SH-100 north of Sandplant Road.



20. View looking west at the Gore Cemetery. Photograph taken from the east side of SH-100 north of Sandplant Road.



21. View looking northwest at the east adjoining residential property. Photograph taken east of SH-100 on Sandplant Road.



22. View looking southeast down Sandplant Road. Photograph taken east of SH-100.



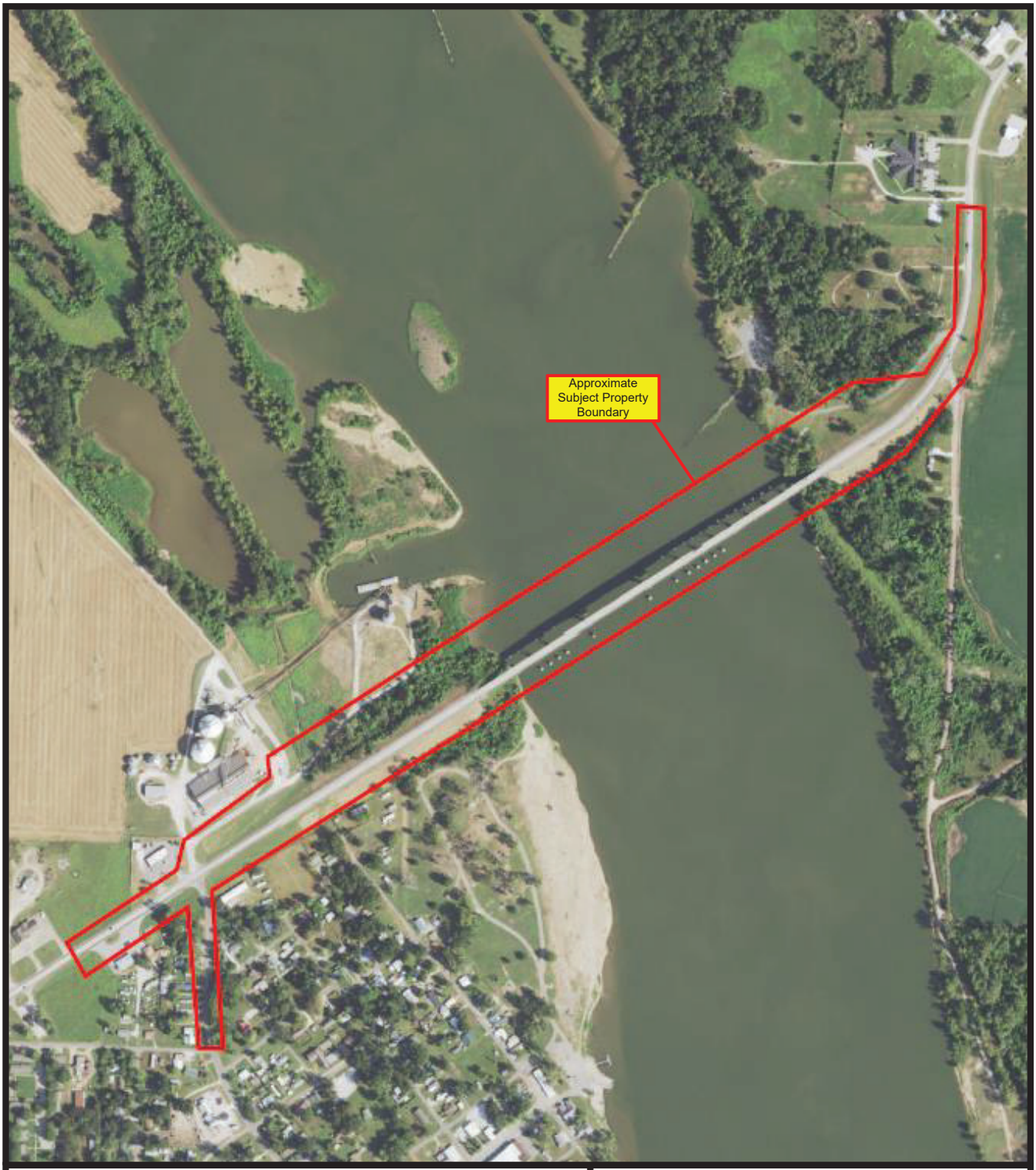
23. View looking northwest at SH-100. Photograph taken from the southeast side of SH-100 at Cawhorn Road in Gore.



24. View looking north at northeast adjoining agricultural properties. Photograph taken from Cawhorn Road.

EXHIBIT D

Aerial Photographs



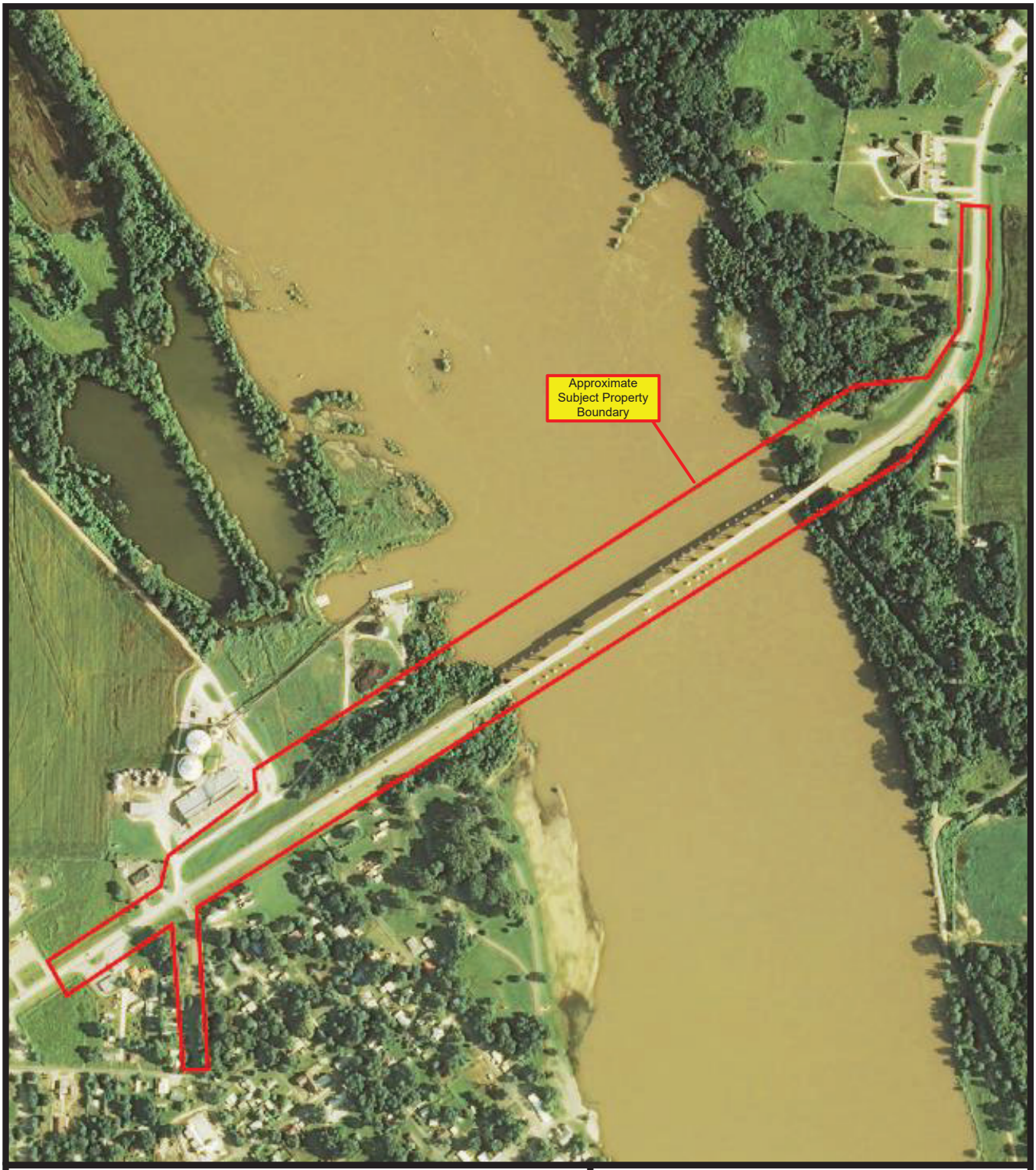
Enercon Services, Inc.
1601 NW Expressway, Ste. 1000
Oklahoma City, OK 73118
www.enercon.com
405.722.7693 405.722.7694 (fax)

Prepared for: ODOT
Project: CP&Y~00003

2017 Aerial Photograph

SH-100 ARKANSAS RIVER BRIDGE

Muskogee and Sequoyah Counties, Oklahoma



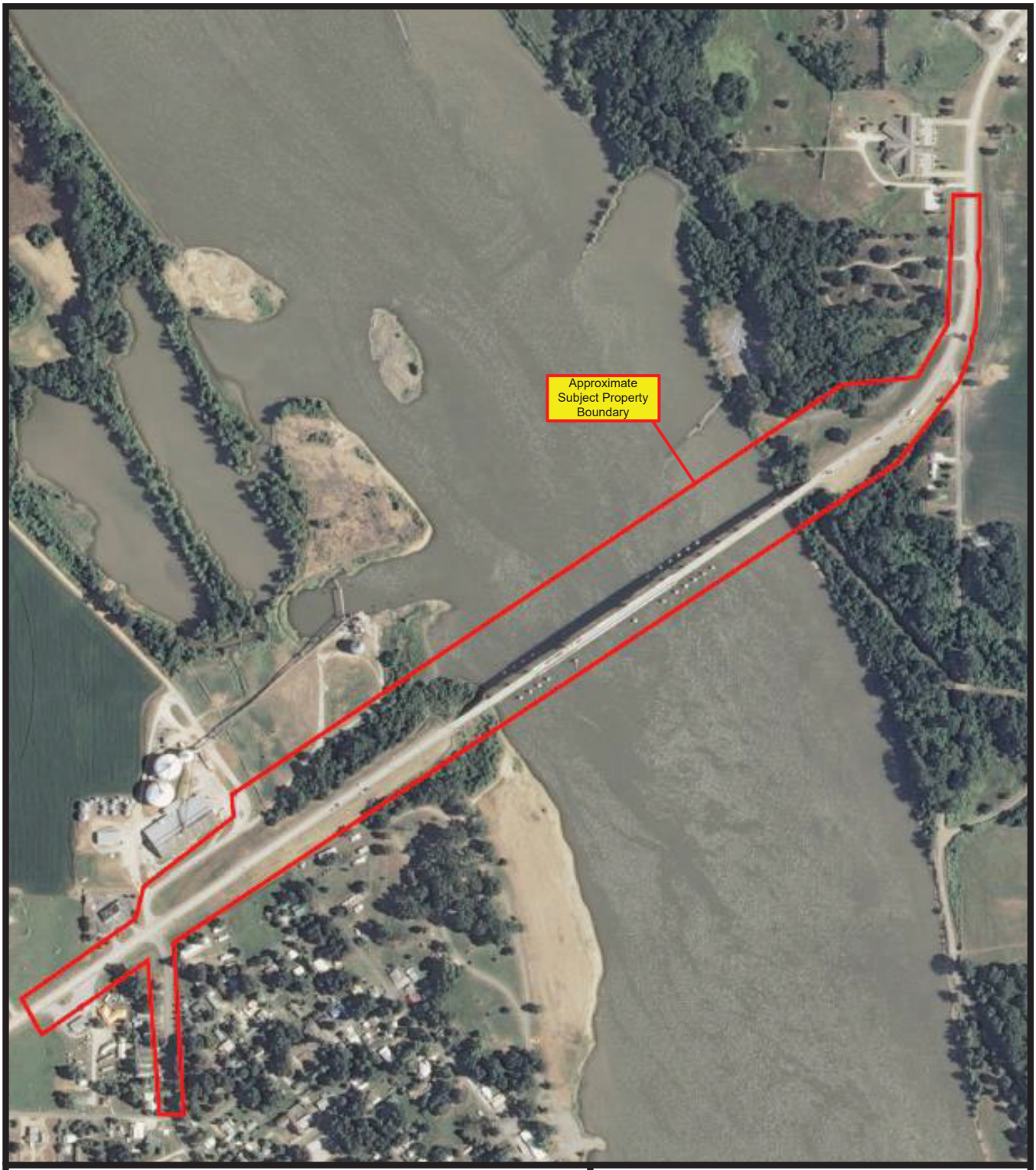
Enercon Services, Inc.
1601 NW Expressway, Ste. 1000
Oklahoma City, OK 73118
www.enercon.com
405.722.7693 405.722.7694 (fax)

Prepared for: ODOT
Project: CP&Y~00003

2013 Aerial Photograph

SH-100 ARKANSAS RIVER BRIDGE

Muskogee and Sequoyah Counties, Oklahoma



Enercon Services, Inc.
1601 NW Expressway, Ste. 1000
Oklahoma City, OK 73118
www.enercon.com
405.722.7693 405.722.7694 (fax)

Prepared for: ODOT
Project: CP&Y~00003

2010 Aerial Photograph

SH-100 ARKANSAS RIVER BRIDGE

Muskogee and Sequoyah Counties, Oklahoma



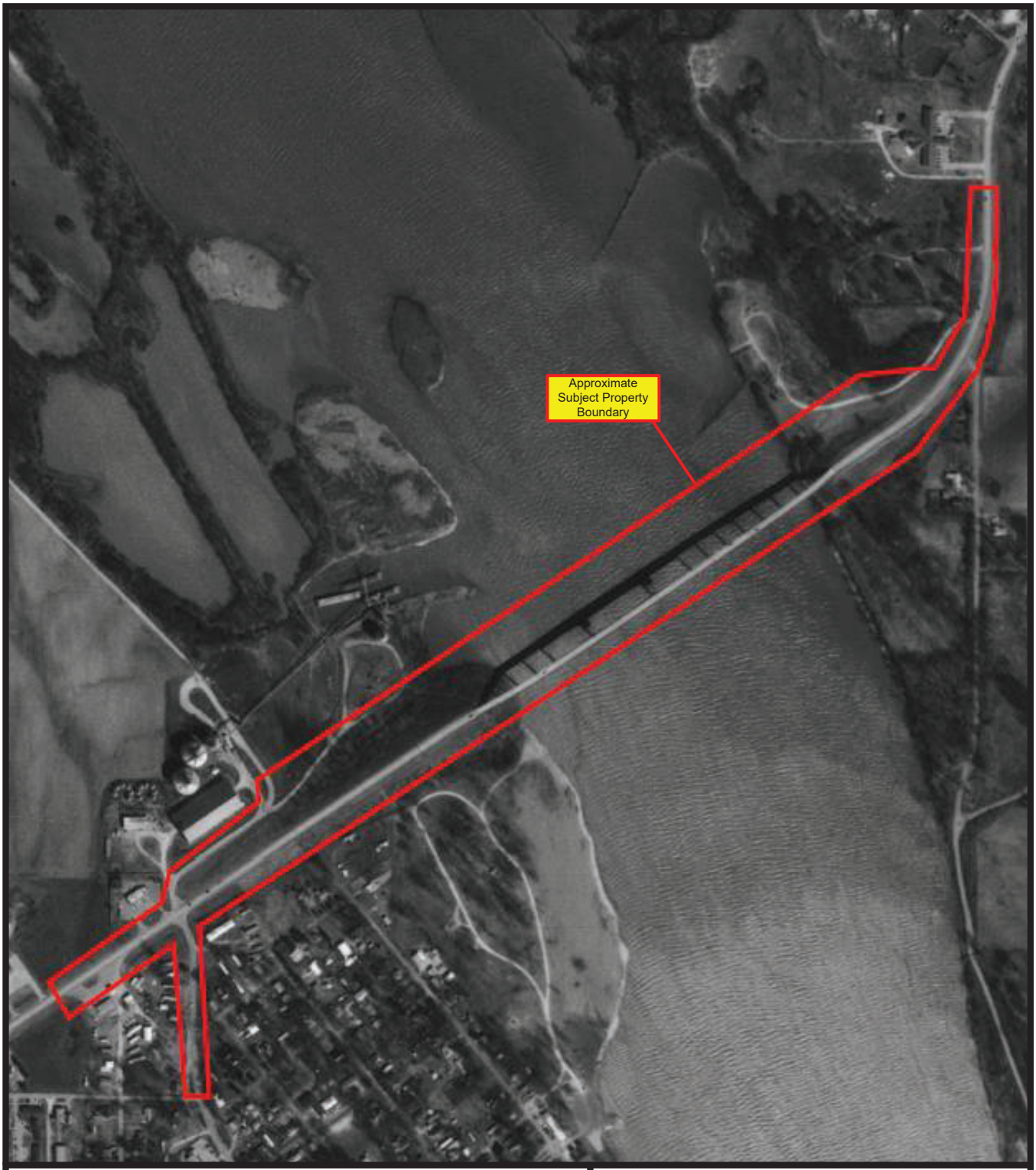
Enercon Services, Inc.
1601 NW Expressway, Ste. 1000
Oklahoma City, OK 73118
www.enercon.com
405.722.7693 405.722.7694 (fax)

Prepared for: ODOT
Project: CP&Y~00003

2006 Aerial Photograph

SH-100 ARKANSAS RIVER BRIDGE

Muskogee and Sequoyah Counties, Oklahoma



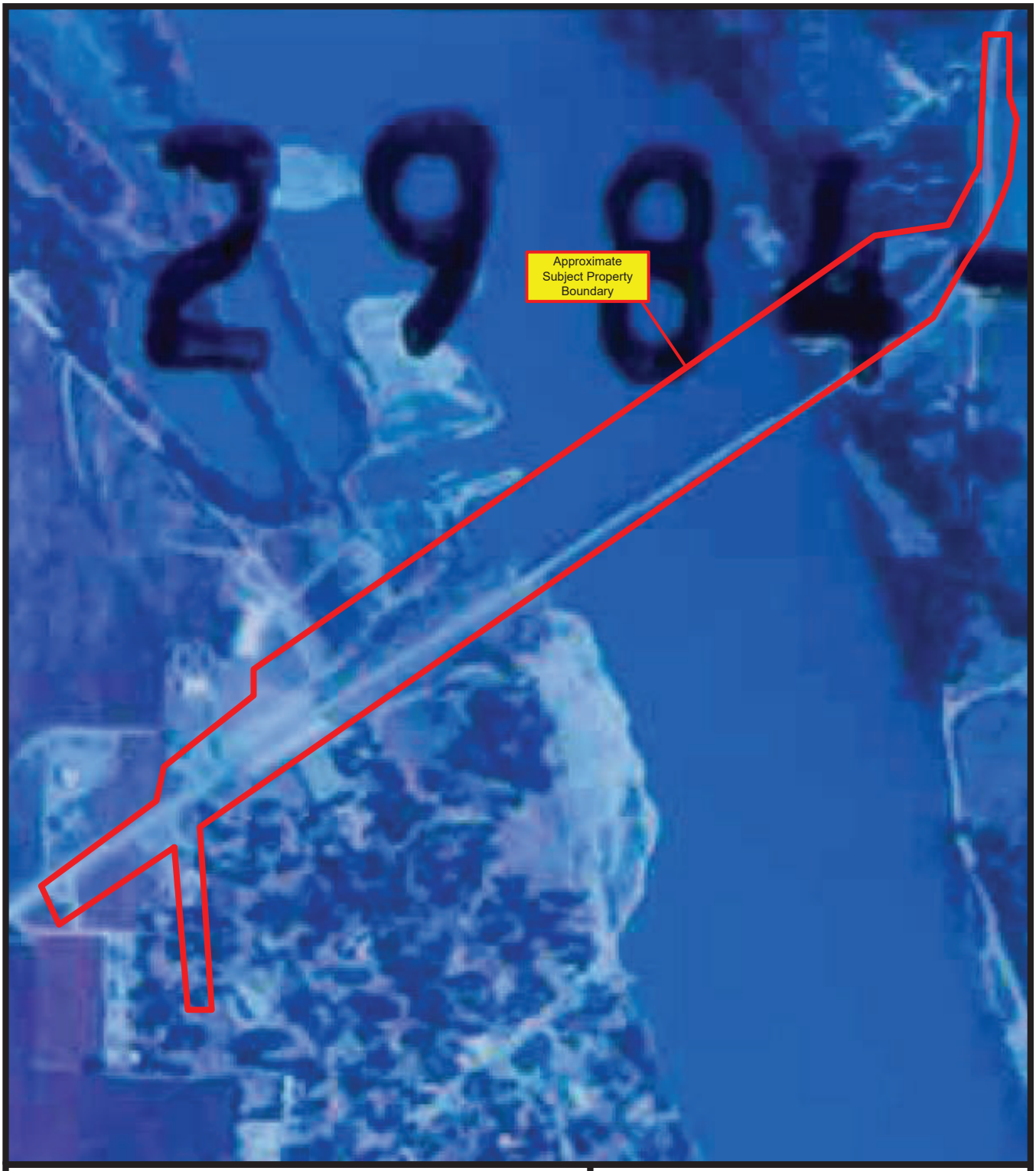
Enercon Services, Inc.
1601 NW Expressway, Ste. 1000
Oklahoma City, OK 73118
www.enercon.com
405.722.7693 405.722.7694 (fax)

Prepared for: ODOT
Project: CP&Y~00003

1995 Aerial Photograph

SH-100 ARKANSAS RIVER BRIDGE

Muskogee and Sequoyah Counties, Oklahoma



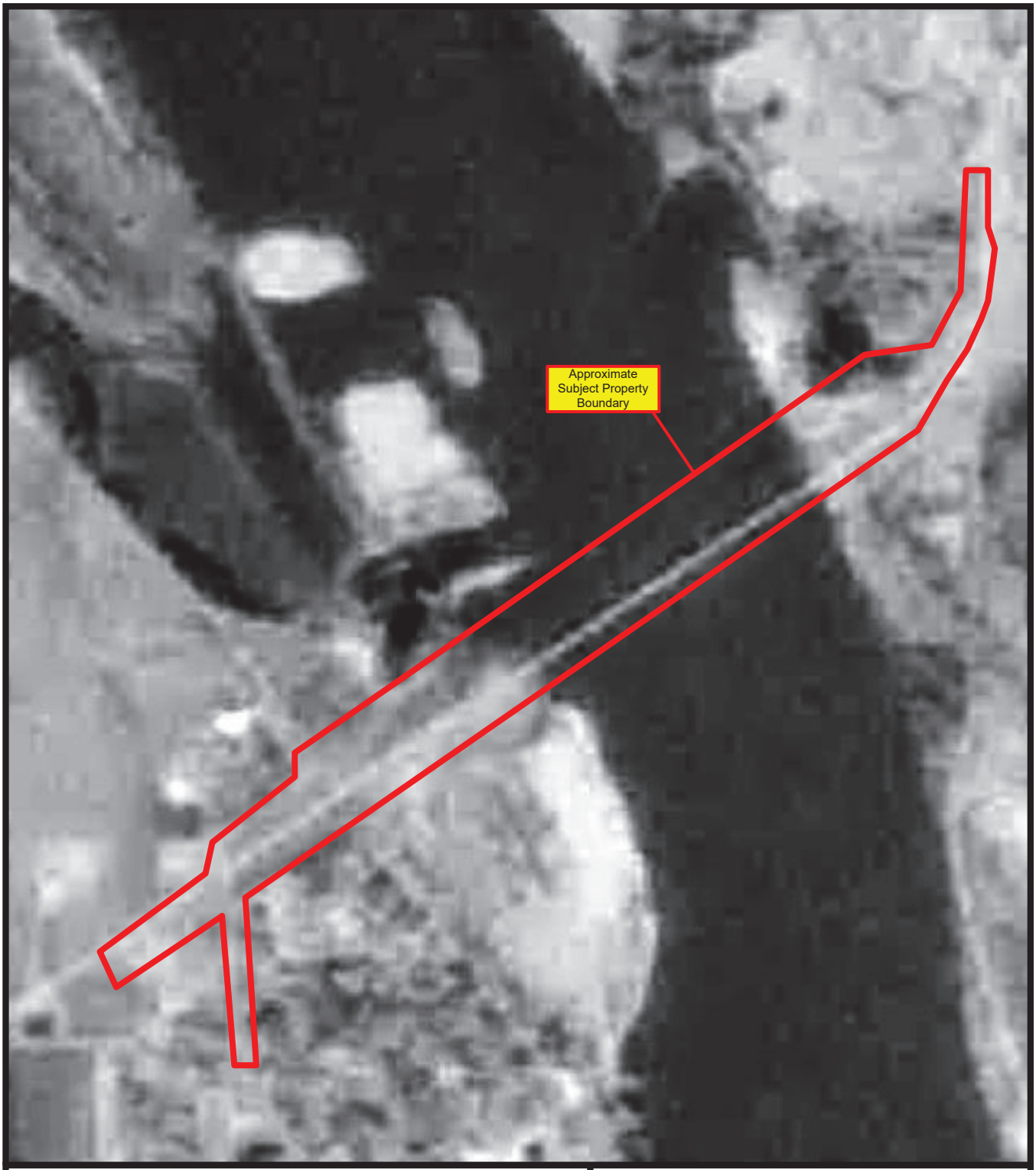
Enercon Services, Inc.
1601 NW Expressway, Ste. 1000
Oklahoma City, OK 73118
www.enercon.com
405.722.7693 405.722.7694 (fax)

Prepared for: ODOT
Project: CP&Y~00003

1984 Aerial Photograph

SH-100 ARKANSAS RIVER BRIDGE

Muskogee and Sequoyah Counties, Oklahoma



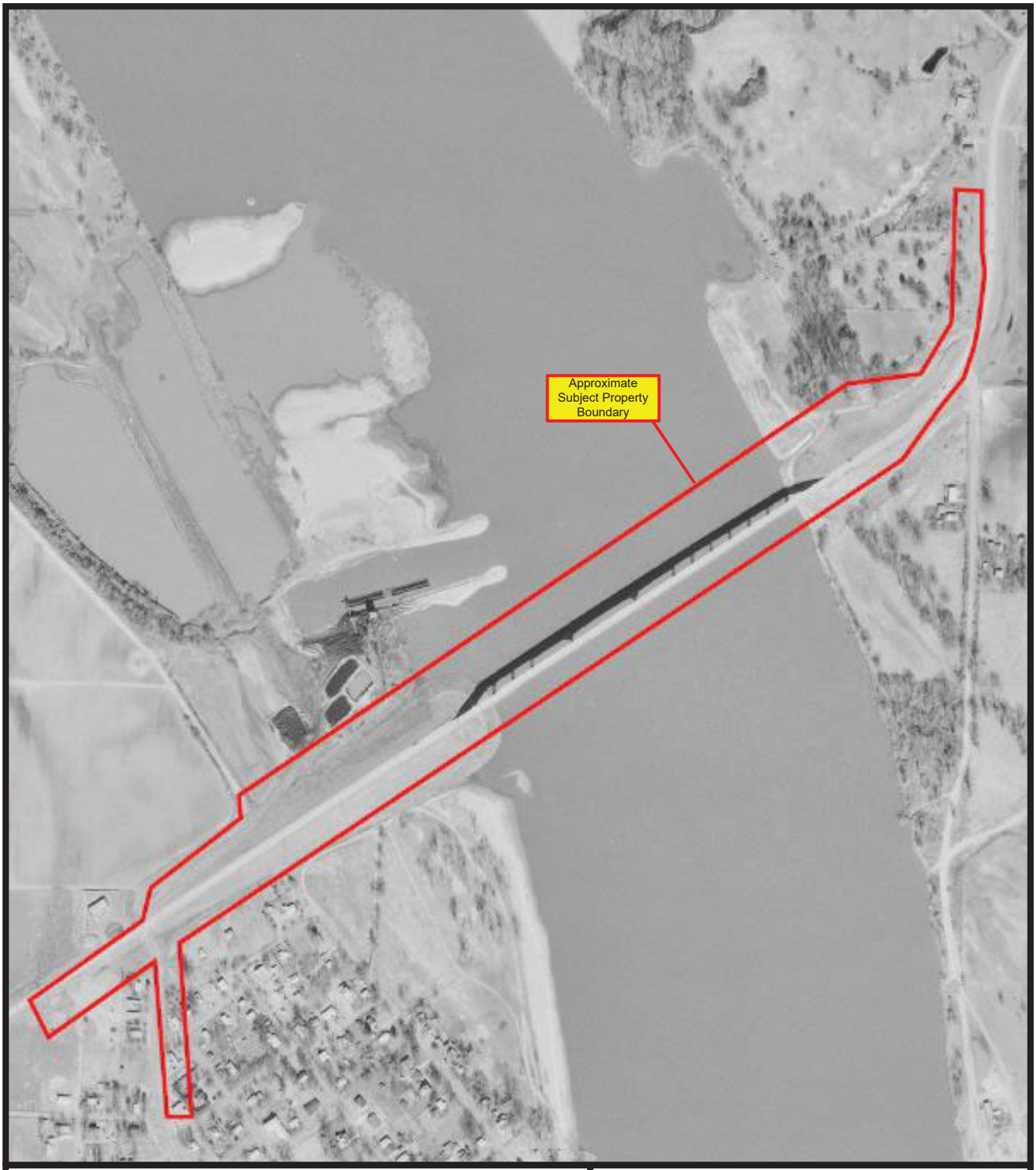
Enercon Services, Inc.
1601 NW Expressway, Ste. 1000
Oklahoma City, OK 73118
www.enercon.com
405.722.7693 405.722.7694 (fax)

Prepared for: ODOT
Project: CP&Y~00003

1980 Aerial Photograph

SH-100 ARKANSAS RIVER BRIDGE

Muskogee and Sequoyah Counties, Oklahoma



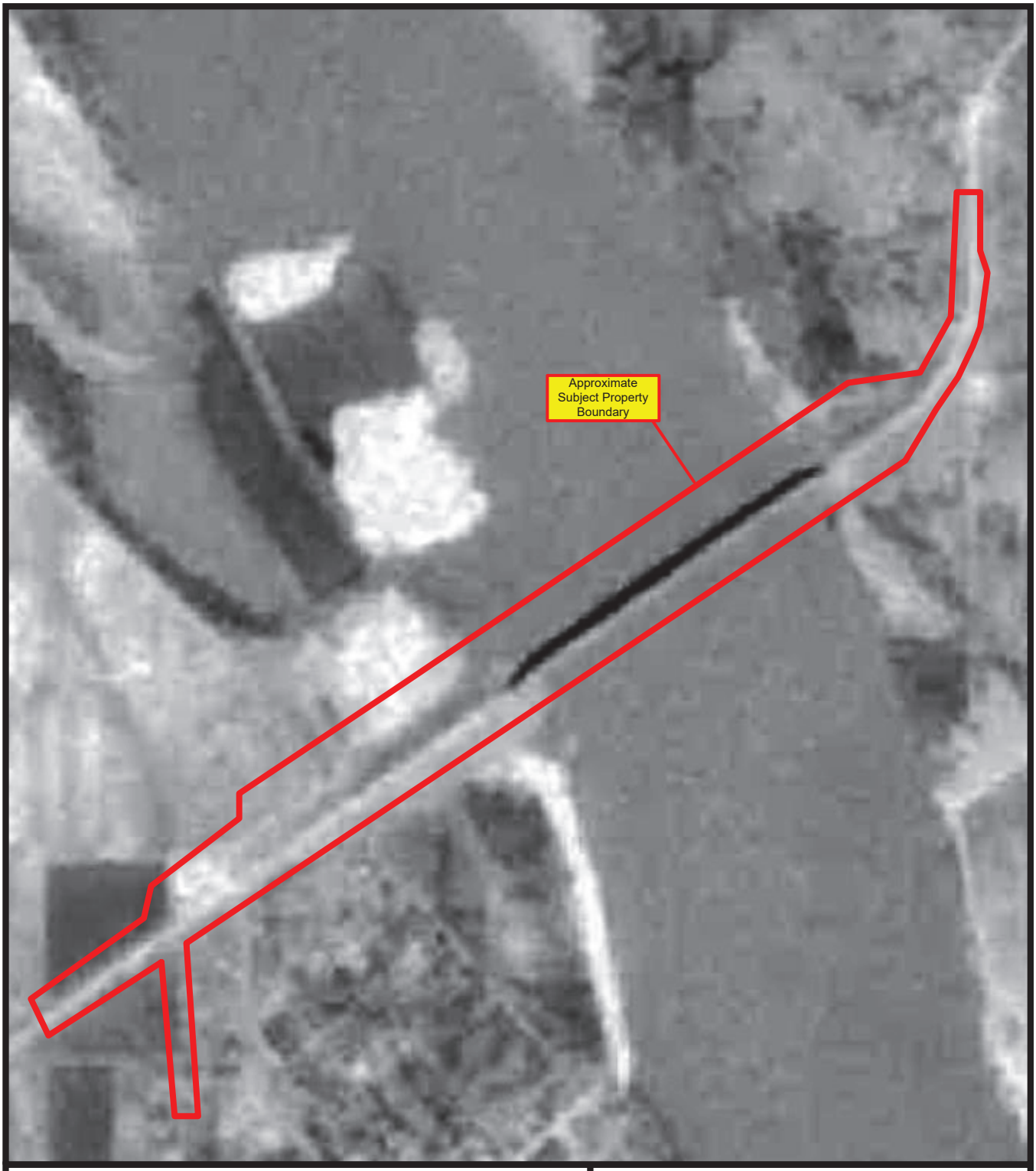
Enercon Services, Inc.
1601 NW Expressway, Ste. 1000
Oklahoma City, OK 73118
www.enercon.com
405.722.7693 405.722.7694 (fax)

Prepared for: ODOT
Project: CP&Y~00003

1973 Aerial Photograph

SH-100 ARKANSAS RIVER BRIDGE

Muskogee and Sequoyah Counties, Oklahoma



Enercon Services, Inc.
1601 NW Expressway, Ste. 1000
Oklahoma City, OK 73118
www.enercon.com
405.722.7693 405.722.7694 (fax)

Prepared for: ODOT
Project: CP&Y~00003

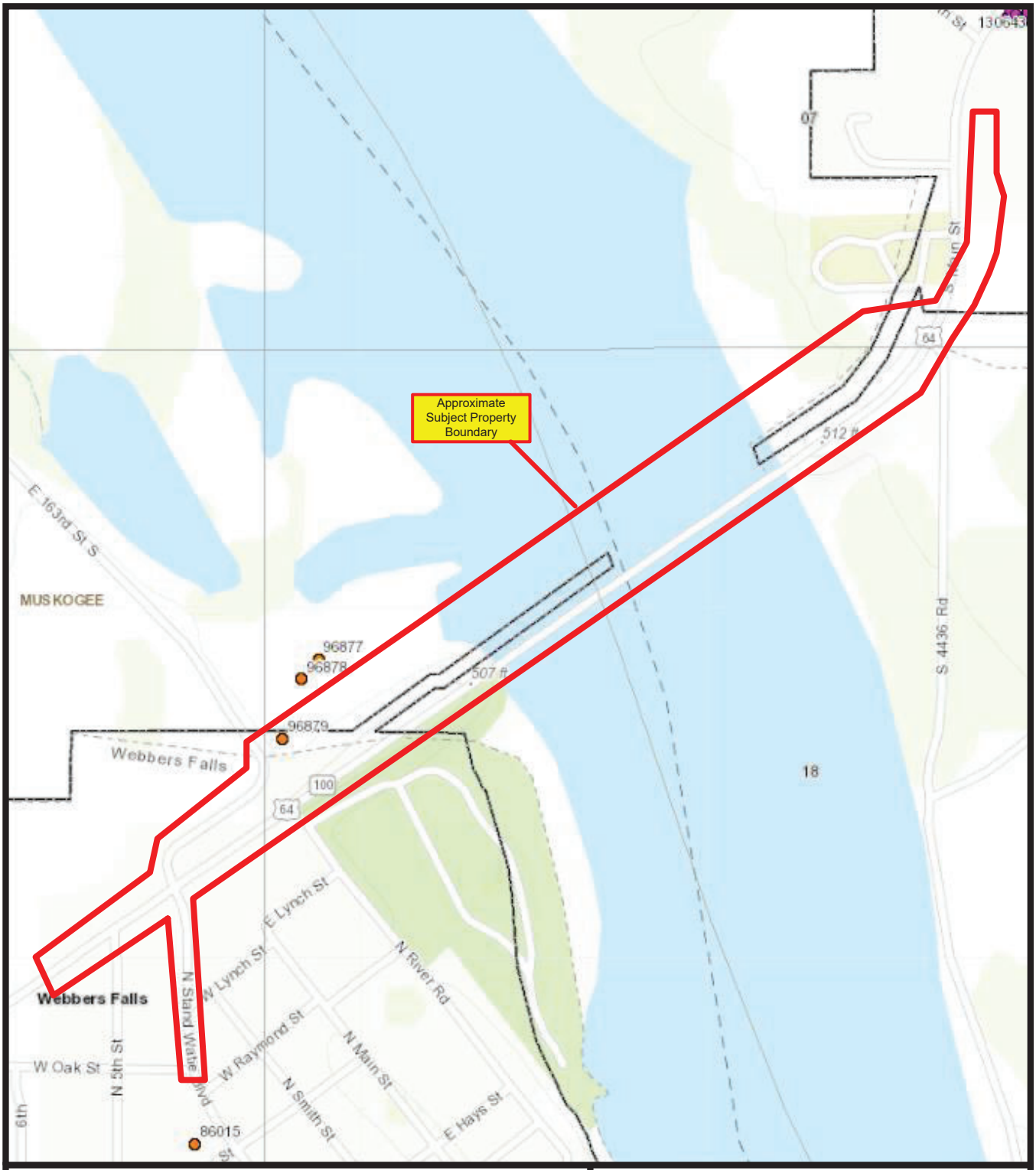
1971 Aerial Photograph

SH-100 ARKANSAS RIVER BRIDGE

Muskogee and Sequoyah Counties, Oklahoma

EXHIBIT E

USGS and OWRB Well Records



Enercon Services, Inc.
1601 NW Expressway, Ste. 1000
Oklahoma City, OK 73118
www.enercon.com
405.722.7693 405.722.7694 (fax)

Prepared for: ODOT
Project: CP&Y~00003

Oklahoma Water Resources Board (OWRB) Corridor Well Map

SH-100 ARKANSAS RIVER BRIDGE

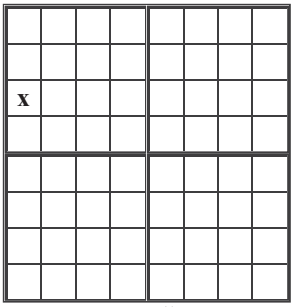
Muskogee and Sequoyah Counties, Oklahoma

MULTI-PURPOSE WELL COMPLETION & PLUGGING REPORT

Oklahoma Water Resources Board
3800 North Classen Boulevard
Oklahoma City, OK 73118
Telephone (405) 530-8800

Legal Location

North



Each square is 10-acres

WELL ID NUMBER: 96879

Quarters NW-SW-NW **Section** 18 **Township** 12N **Range** 21EI

Latitude 35.5171 Longitude -95.13185

Date collected(latitude and longitude), if different from date the well was drilled: 08/11/2005

Method latitude and longitude was collected: GPS - uncorrected data

County Muskogee Variance Request No. (if applicable) n/a

WELL OWNER - NAME AND ADDRESS

Well Owner Consolidated Grain Co. Phone (918) 464-2296

Address/City/State P.O. Box 425 Webbers Falls OK Zip 74470

Finding Location ___

Well Name SB-7 Water Rights #: ___

TYPE OF WORK: Geotechnical Boring **USE OF WELL:** Soil Evaluation

NEW WELL CONSTRUCTION DATA

Date Well or Boring Was Completed 08/11/2005

Number of wells or borings represented by this log 1

* (Borings are within the same 10 acre-tract and with the same general depths and lithologies)

Hole Diameter 2.875 inches to a depth of 12 ft.

CASING INFORMATION ***Note:** If surface casing is used please indicate that on the appropriate well casing information line.

Surface Pipe Material: ___ Surface Pipe Diameter ___ inches Surface Pipe From ___ ft to ___ ft

SCREEN OR PERFORATION INFORMATION

FILTER PACK INFORMATION

Filter Pack Material: __

WELL SEAL INFORMATION

Type of Surface Seal n/a

Surface Seal Interval: From n/a ft to n/a ft

Type of Annular Seal n/a

Annular Seal Interval: From n/a ft to n/a ft

Filter Pack Seal Material n/a

Filter Pack Seal Interval: From n/a ft to n/a ft

TYPE OF COMPLETION: __

HYDROLOGIC INFORMATION

Depth to water at time of drilling ___ ft

Estimated yield of well ___ gpm

First water zone ___ft

LITHOLOGY DESCRIPTION

MATERIAL	ENCOUNTERED		SATURATED
	FROM (ft.)	TO (ft.)	
Brown clayey sand	0	12	N

WELL LOCATION TO POTENTIAL SOURCES OF POLLUTION

Has this well been disinfected after completion of work? n/a

Are than any potential sources of pollution or wastewater lagoons within 300 ft. of the well? n/a

Distance of Well is n/a from possible source. Type of possible source: n/a

PLUGGING INFORMATION

Date Well or Boring Was Plugged 08/11/2005

Total Depth of well being plugged 12 ft.

Was the well contaminated or was it plugged as though it was contaminated? No

If the well or boring was plugged as if it was contaminated, was the casing removed or perforated? No

Was the grout tremied? Yes

Backfilled with n/a

Backfilled from ___ ft. to ___ ft.

Grouted with n/a

Grouted from ___ ft. to ___ ft.

Grouted with Cement

Grouted from 0 ft. to 12 ft.

Firm Name Envirotech Engineering & Consulting, Inc.

D/PC No. DPC-0283

Operator Name TONY HORNER

OP No. OP-1190

Date 10/10/2005

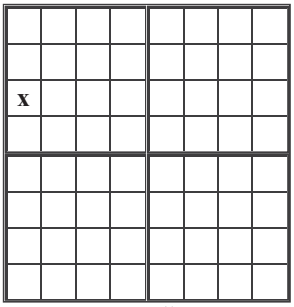
Comments: n/a

MULTI-PURPOSE WELL COMPLETION & PLUGGING REPORT

Oklahoma Water Resources Board
3800 North Classen Boulevard
Oklahoma City, OK 73118
Telephone (405) 530-8800

Legal Location

North



Each square is 10-acres

WELL ID NUMBER: 96879

Quarters NW-SW-NW **Section** 18 **Township** 12N **Range** 21EI

Latitude 35.5171 Longitude -95.13185

Date collected(latitude and longitude), if different from date the well was drilled: 08/11/2005

Method latitude and longitude was collected: GPS - uncorrected data

County Muskogee Variance Request No. (if applicable) n/a

WELL OWNER - NAME AND ADDRESS

Well Owner Consolidated Grain Co. Phone (918) 464-2296

Address/City/State P.O. Box 425 Webbers Falls OK Zip 74470

Finding Location ___

Well Name SB-7 Water Rights #: ___

TYPE OF WORK: Geotechnical Boring **USE OF WELL:** Soil Evaluation

NEW WELL CONSTRUCTION DATA

Date Well or Boring Was Completed 08/11/2005

Number of wells or borings represented by this log 1

* (Borings are within the same 10 acre-tract and with the same general depths and lithologies)

Hole Diameter 2.875 inches to a depth of 12 ft.

CASING INFORMATION ***Note:** If surface casing is used please indicate that on the appropriate well casing information line.

Surface Pipe Material: ___ Surface Pipe Diameter ___ inches Surface Pipe From ___ ft to ___ ft

SCREEN OR PERFORATION INFORMATION

FILTER PACK INFORMATION

Filter Pack Material: __

WELL SEAL INFORMATION

Type of Surface Seal n/a

Surface Seal Interval: From n/a ft to n/a ft

Type of Annular Seal n/a

Annular Seal Interval: From n/a ft to n/a ft

Filter Pack Seal Material n/a

Filter Pack Seal Interval: From n/a ft to n/a ft

TYPE OF COMPLETION: __

HYDROLOGIC INFORMATION

Depth to water at time of drilling ___ ft

Estimated yield of well ___ gpm

First water zone ___ft

LITHOLOGY DESCRIPTION

MATERIAL	ENCOUNTERED		SATURATED
	FROM (ft.)	TO (ft.)	
Brown clayey sand	0	12	N

WELL LOCATION TO POTENTIAL SOURCES OF POLLUTION

Has this well been disinfected after completion of work? n/a

Are than any potential sources of pollution or wastewater lagoons within 300 ft. of the well? n/a

Distance of Well is n/a from possible source. Type of possible source: n/a

PLUGGING INFORMATION

Date Well or Boring Was Plugged 08/11/2005

Total Depth of well being plugged 12 ft.

Was the well contaminated or was it plugged as though it was contaminated? No

If the well or boring was plugged as if it was contaminated, was the casing removed or perforated? No

Was the grout tremied? Yes

Backfilled with n/a

Backfilled from ___ ft. to ___ ft.

Grouted with n/a

Grouted from ___ ft. to ___ ft.

Grouted with Cement

Grouted from 0 ft. to 12 ft.

Firm Name Envirotech Engineering & Consulting, Inc.

D/PC No. DPC-0283

Operator Name TONY HORNER

OP No. OP-1190

Date 10/10/2005

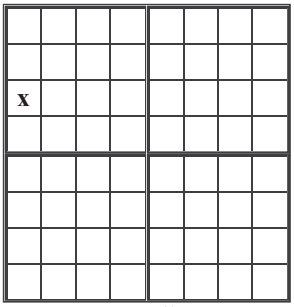
Comments: n/a

MULTI-PURPOSE WELL COMPLETION & PLUGGING REPORT

Oklahoma Water Resources Board
3800 North Classen Boulevard
Oklahoma City, OK 73118
Telephone (405) 530-8800

Legal Location

North



Each square is 10-acres

WELL ID NUMBER: 96878

Quarters NW-SW-NW **Section** 18 **Township** 12N **Range** 21EI

Latitude 35.5178667 Longitude -95.13155

Date collected(latitude and longitude), if different from date the well was drilled: 08/11/2005

Method latitude and longitude was collected: GPS - uncorrected data

County Muskogee Variance Request No. (if applicable) n/a

WELL OWNER - NAME AND ADDRESS

Well Owner Consolidated Grain Co. Phone (918) 464-2296

Address/City/State P.O. Box 425 Webbers Falls OK Zip 74470

Finding Location ___

Well Name SB-2 thru SB-6 Water Rights #: ___

TYPE OF WORK: Geotechnical Boring **USE OF WELL:** Soil Evaluation

NEW WELL CONSTRUCTION DATA

Date Well or Boring Was Completed 08/11/2005

Number of wells or borings represented by this log 5

* (Borings are within the same 10 acre-tract and with the same general depths and lithologies)

Hole Diameter 2.875 inches to a depth of 16 ft.

CASING INFORMATION ***Note:** If surface casing is used please indicate that on the appropriate well casing information line.

Surface Pipe Material: __ Surface Pipe Diameter ___ inches Surface Pipe From ___ ft to ___ ft

SCREEN OR PERFORATION INFORMATION

FILTER PACK INFORMATION

Filter Pack Material: __

WELL SEAL INFORMATION

Type of Surface Seal n/a | Surface Seal Interval: From n/a ft to n/a ft

Type of Annular Seal n/a | Annular Seal Interval: From n/a ft to n/a ft

Filter Pack Seal Material n/a | Filter Pack Seal Interval: From n/a ft to n/a ft

TYPE OF COMPLETION: __

HYDROLOGIC INFORMATION

Depth to water at time of drilling ___ ft | Estimated yield of well ___ gpm | First water zone ___ft

LITHOLOGY DESCRIPTION

MATERIAL	ENCOUNTERED		SATURATED
	FROM (ft.)	TO (ft.)	
Brown clayey sand	0	16	N

WELL LOCATION TO POTENTIAL SOURCES OF POLLUTION

Has this well been disinfected after completion of work? n/a

Are than any potential sources of pollution or wastewater lagoons within 300 ft. of the well? n/a

Distance of Well is n/a from possible source. Type of possible source: n/a

PLUGGING INFORMATION

Date Well or Boring Was Plugged 08/11/2005 | Total Depth of well being plugged 16 ft.

Was the well contaminated or was it plugged as though it was contaminated? No

If the well or boring was plugged as if it was contaminated, was the casing removed or perforated? No

Was the grout tremied? Yes

Backfilled with n/a | Backfilled from ___ ft. to ___ ft.

Grouted with n/a | Grouted from ___ ft. to ___ ft.

Grouted with Cement | Grouted from 0 ft. to 16 ft.

Firm Name Envirotech Engineering & Consulting, Inc. | D/PC No. DPC-0283

Operator Name TONY HORNER | OP No. OP-1190

Date 10/10/2005

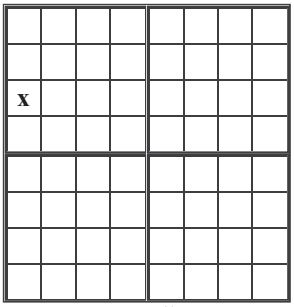
Comments: n/a

MULTI-PURPOSE WELL COMPLETION & PLUGGING REPORT

Oklahoma Water Resources Board
3800 North Classen Boulevard
Oklahoma City, OK 73118
Telephone (405) 530-8800

Legal Location

North



Each square is 10-acres

WELL ID NUMBER: 96878

Quarters NW-SW-NW **Section** 18 **Township** 12N **Range** 21EI

Latitude 35.5178667 Longitude -95.13155

Date collected(latitude and longitude), if different from date the well was drilled: 08/11/2005

Method latitude and longitude was collected: GPS - uncorrected data

County Muskogee Variance Request No. (if applicable) n/a

WELL OWNER - NAME AND ADDRESS

Well Owner Consolidated Grain Co. Phone (918) 464-2296

Address/City/State P.O. Box 425 Webbers Falls OK Zip 74470

Finding Location ___

Well Name SB-2 thru SB-6 Water Rights #: ___

TYPE OF WORK: Geotechnical Boring **USE OF WELL:** Soil Evaluation

NEW WELL CONSTRUCTION DATA

Date Well or Boring Was Completed 08/11/2005

Number of wells or borings represented by this log 5

* (Borings are within the same 10 acre-tract and with the same general depths and lithologies)

Hole Diameter 2.875 inches to a depth of 16 ft.

CASING INFORMATION ***Note:** If surface casing is used please indicate that on the appropriate well casing information line.

Surface Pipe Material: __ Surface Pipe Diameter ___ inches Surface Pipe From ___ ft to ___ ft

SCREEN OR PERFORATION INFORMATION

FILTER PACK INFORMATION

Filter Pack Material: __

WELL SEAL INFORMATION

Type of Surface Seal n/a | Surface Seal Interval: From n/a ft to n/a ft

Type of Annular Seal n/a | Annular Seal Interval: From n/a ft to n/a ft

Filter Pack Seal Material n/a | Filter Pack Seal Interval: From n/a ft to n/a ft

TYPE OF COMPLETION: __

HYDROLOGIC INFORMATION

Depth to water at time of drilling ___ ft | Estimated yield of well ___ gpm | First water zone ___ft

LITHOLOGY DESCRIPTION

MATERIAL	ENCOUNTERED		SATURATED
	FROM (ft.)	TO (ft.)	
Brown clayey sand	0	16	N

WELL LOCATION TO POTENTIAL SOURCES OF POLLUTION

Has this well been disinfected after completion of work? n/a

Are than any potential sources of pollution or wastewater lagoons within 300 ft. of the well? n/a

Distance of Well is n/a from possible source. Type of possible source: n/a

PLUGGING INFORMATION

Date Well or Boring Was Plugged 08/11/2005 | Total Depth of well being plugged 16 ft.

Was the well contaminated or was it plugged as though it was contaminated? No

If the well or boring was plugged as if it was contaminated, was the casing removed or perforated? No

Was the grout tremied? Yes

Backfilled with n/a | Backfilled from ___ ft. to ___ ft.

Grouted with n/a | Grouted from ___ ft. to ___ ft.

Grouted with Cement | Grouted from 0 ft. to 16 ft.

Firm Name Envirotech Engineering & Consulting, Inc. | D/PC No. DPC-0283

Operator Name TONY HORNER | OP No. OP-1190

Date 10/10/2005

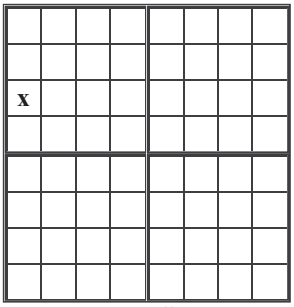
Comments: n/a

MULTI-PURPOSE WELL COMPLETION & PLUGGING REPORT

Oklahoma Water Resources Board
3800 North Classen Boulevard
Oklahoma City, OK 73118
Telephone (405) 530-8800

Legal Location

North



Each square is 10-acres

WELL ID NUMBER: 96877

Quarters NW-SW-NW **Section** 18 **Township** 12N **Range** 21EI

Latitude 35.5181167 Longitude -95.1312833

Date collected(latitude and longitude), if different from date the well was drilled: 08/11/2005

Method latitude and longitude was collected: GPS - uncorrected data

County Muskogee Variance Request No. (if applicable) n/a

WELL OWNER - NAME AND ADDRESS

Well Owner Consolidated Grain Co. Phone (918) 464-2296

Address/City/State P.O. Box 425 Webbers Falls OK Zip 74470

Finding Location ___

Well Name SB-1 Water Rights #: ___

TYPE OF WORK: Geotechnical Boring **USE OF WELL:** Soil Evaluation

NEW WELL CONSTRUCTION DATA

Date Well or Boring Was Completed 08/11/2005

Number of wells or borings represented by this log 1

* (Borings are within the same 10 acre-tract and with the same general depths and lithologies)

Hole Diameter 2.875 inches to a depth of 23 ft.

CASING INFORMATION ***Note:** If surface casing is used please indicate that on the appropriate well casing information line.

Surface Pipe Material: ___ Surface Pipe Diameter ___ inches Surface Pipe From ___ ft to ___ ft

SCREEN OR PERFORATION INFORMATION

FILTER PACK INFORMATION

Filter Pack Material: __

WELL SEAL INFORMATION

Type of Surface Seal n/a

Surface Seal Interval: From n/a ft to n/a ft

Type of Annular Seal n/a

Annular Seal Interval: From n/a ft to n/a ft

Filter Pack Seal Material n/a

Filter Pack Seal Interval: From n/a ft to n/a ft

TYPE OF COMPLETION: __

HYDROLOGIC INFORMATION

Depth to water at time of drilling ___ ft

Estimated yield of well ___ gpm

First water zone ___ft

LITHOLOGY DESCRIPTION

MATERIAL	ENCOUNTERED		SATURATED
	FROM (ft.)	TO (ft.)	
Fine to med. sand and gravel	0	23	N

WELL LOCATION TO POTENTIAL SOURCES OF POLLUTION

Has this well been disinfected after completion of work? n/a

Are than any potential sources of pollution or wastewater lagoons within 300 ft. of the well? n/a

Distance of Well is n/a from possible source. Type of possible source: n/a

PLUGGING INFORMATION

Date Well or Boring Was Plugged 08/11/2005

Total Depth of well being plugged 23 ft.

Was the well contaminated or was it plugged as though it was contaminated? No

If the well or boring was plugged as if it was contaminated, was the casing removed or perforated? No

Was the grout tremied? Yes

Backfilled with n/a

Backfilled from ___ ft. to ___ ft.

Grouted with n/a

Grouted from ___ ft. to ___ ft.

Grouted with Cement

Grouted from 0 ft. to 23 ft.

Firm Name Envirotech Engineering & Consulting, Inc.

D/PC No. DPC-0283

Operator Name TONY HORNER

OP No. OP-1190

Date 10/10/2005

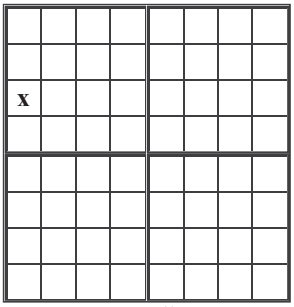
Comments: n/a

MULTI-PURPOSE WELL COMPLETION & PLUGGING REPORT

Oklahoma Water Resources Board
3800 North Classen Boulevard
Oklahoma City, OK 73118
Telephone (405) 530-8800

Legal Location

North



Each square is 10-acres

WELL ID NUMBER: 96877

Quarters NW-SW-NW **Section** 18 **Township** 12N **Range** 21EI

Latitude 35.5181167 Longitude -95.1312833

Date collected(latitude and longitude), if different from date the well was drilled: 08/11/2005

Method latitude and longitude was collected: GPS - uncorrected data

County Muskogee Variance Request No. (if applicable) n/a

WELL OWNER - NAME AND ADDRESS

Well Owner Consolidated Grain Co. Phone (918) 464-2296

Address/City/State P.O. Box 425 Webbers Falls OK Zip 74470

Finding Location ___

Well Name SB-1 Water Rights #: ___

TYPE OF WORK: Geotechnical Boring **USE OF WELL:** Soil Evaluation

NEW WELL CONSTRUCTION DATA

Date Well or Boring Was Completed 08/11/2005

Number of wells or borings represented by this log 1

* (Borings are within the same 10 acre-tract and with the same general depths and lithologies)

Hole Diameter 2.875 inches to a depth of 23 ft.

CASING INFORMATION ***Note:** If surface casing is used please indicate that on the appropriate well casing information line.

Surface Pipe Material: ___ Surface Pipe Diameter ___ inches Surface Pipe From ___ ft to ___ ft

SCREEN OR PERFORATION INFORMATION

FILTER PACK INFORMATION

Filter Pack Material: __

WELL SEAL INFORMATION

Type of Surface Seal n/a

Surface Seal Interval: From n/a ft to n/a ft

Type of Annular Seal n/a

Annular Seal Interval: From n/a ft to n/a ft

Filter Pack Seal Material n/a

Filter Pack Seal Interval: From n/a ft to n/a ft

TYPE OF COMPLETION: __

HYDROLOGIC INFORMATION

Depth to water at time of drilling ___ ft

Estimated yield of well ___ gpm

First water zone ___ft

LITHOLOGY DESCRIPTION

MATERIAL	ENCOUNTERED		SATURATED
	FROM (ft.)	TO (ft.)	
Fine to med. sand and gravel	0	23	N

WELL LOCATION TO POTENTIAL SOURCES OF POLLUTION

Has this well been disinfected after completion of work? n/a

Are than any potential sources of pollution or wastewater lagoons within 300 ft. of the well? n/a

Distance of Well is n/a from possible source. Type of possible source: n/a

PLUGGING INFORMATION

Date Well or Boring Was Plugged 08/11/2005

Total Depth of well being plugged 23 ft.

Was the well contaminated or was it plugged as though it was contaminated? No

If the well or boring was plugged as if it was contaminated, was the casing removed or perforated? No

Was the grout tremied? Yes

Backfilled with n/a

Backfilled from ___ ft. to ___ ft.

Grouted with n/a

Grouted from ___ ft. to ___ ft.

Grouted with Cement

Grouted from 0 ft. to 23 ft.

Firm Name Envirotech Engineering & Consulting, Inc.

D/PC No. DPC-0283

Operator Name TONY HORNER

OP No. OP-1190

Date 10/10/2005

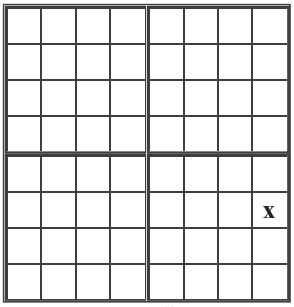
Comments: n/a

MULTI-PURPOSE WELL COMPLETION & PLUGGING REPORT

Oklahoma Water Resources Board
3800 North Classen Boulevard
Oklahoma City, OK 73118
Telephone (405) 530-8800

Legal Location

North



«——— One Mile ———»

Each square is 10-acres

WELL ID NUMBER: 86015

Quarters SE-NE-SE **Section** 13 **Township** 12N **Range** 20EI

Latitude 35.511939 Longitude -95.133243

Date collected(latitude and longitude), if different from date the well was drilled: 04/30/2004

Method latitude and longitude was collected: Mathematical conversion program

County Muskogee

Variance Request No. (if applicable) n/a

WELL OWNER - NAME AND ADDRESS

Well Owner Williams - Springfield Enterpr Phone (405) 799-8429

Address/City/State Box 7008 Moore OK Zip 73160

Finding Location ___

Well Name ___ Water Rights #: ___

TYPE OF WORK: Geotechnical Boring **USE OF WELL:** Soil Evaluation

NEW WELL CONSTRUCTION DATA

Date Well or Boring Was Completed 12/02/2003

Number of wells or borings represented by this log 1

* (Borings are within the same 10 acre-tract and with the same general depths and lithologies)

Hole Diameter 6 inches to a depth of 15 ft.

CASING INFORMATION ***Note:** If surface casing is used please indicate that on the appropriate well casing information line.

Surface Pipe Material: __ Surface Pipe Diameter ___ inches Surface Pipe From ___ ft to ___ ft

SCREEN OR PERFORATION INFORMATION

FILTER PACK INFORMATION

Filter Pack Material: __

WELL SEAL INFORMATION

Type of Surface Seal n/a

Type of Annular Seal n/a

Filter Pack Seal Material n/a

Surface Seal Interval: From n/a ft to n/a ft

Annular Seal Interval: From n/a ft to n/a ft

Filter Pack Seal Interval: From n/a ft to n/a ft

TYPE OF COMPLETION: __

HYDROLOGIC INFORMATION

Depth to water at time of drilling ___ ft

Estimated yield of well ___ gpm

First water zone ___ft

LITHOLOGY DESCRIPTION

MATERIAL	ENCOUNTERED		SATURATED
	FROM (ft.)	TO (ft.)	
silt with sand	0	1.5	N
silty sand	1.5	15	N

WELL LOCATION TO POTENTIAL SOURCES OF POLLUTION

Has this well been disinfected after completion of work? n/a

Are than any potential sources of pollution or wastewater lagoons within 300 ft. of the well? n/a

Distance of Well is n/a from possible source. Type of possible source: n/a

PLUGGING INFORMATION

Date Well or Boring Was Plugged 12/02/2003

Total Depth of well being plugged 15 ft.

Was the well contaminated or was it plugged as though it was contaminated? No

If the well or boring was plugged as if it was contaminated, was the casing removed or perforated? No

Was the grout tremied? Yes

Backfilled with Drill Cuttings

Backfilled from 0 ft. to 4 ft.

Grouted with n/a

Grouted from ___ ft. to ___ ft.

Grouted with Cement

Grouted from 4 ft. to 15 ft.

Firm Name Burgess Engineering & Testing, Inc.

D/PC No. DPC-0484

Operator Name ___

OP No. ___

Date 12/29/2003

Comments: n/a

EXHIBIT F

EDR ASTM Search Results and Sanborn Map Search

CP&Y SH-100 MUSKOGEE COUNTY
Highway 64 and North 5th Street
Webbers Falls, OK 74470

Inquiry Number: 5701571.2s
June 27, 2019

The EDR Radius Map™ Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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GEOCHECK ADDENDUM

GeoCheck - Not Requested

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

HIGHWAY 64 AND NORTH 5TH STREET
WEBBERS FALLS, OK 74470

COORDINATES

Latitude (North):	35.5146430 - 35˚ 30' 52.71''
Longitude (West):	95.1346790 - 95˚ 8' 4.84''
Universal Tranverse Mercator:	Zone 15
UTM X (Meters):	306415.2
UTM Y (Meters):	3932013.8
Elevation:	480 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5926552 WEBBERS FALLS, OK
Version Date:	2012
Northeast Map:	5926506 GORE, OK
Version Date:	2012
Southeast Map:	5927242 STIGLER NE, OK
Version Date:	2012
Southwest Map:	5693280 HOLT MOUNTAIN, OK
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20150809
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
HIGHWAY 64 AND NORTH 5TH STREET
WEBBERS FALLS, OK 74470

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
Reg	ROBERT S. KERR LAKE		DOD	Same	1 ft.
1	HIT & RUN	209 HWY 100	UST	Higher	87, 0.016, SSE
2	ROHMILLER OIL COMPAN	6TH & OAK STREET	EDR Hist Auto	Higher	441, 0.084, SW
3	GORE BAIT & TACKLE	304 S MAIN	LAST, UST, AST, HIST UST	Higher	722, 0.137, NE
4	GORE SAV-ON GAS	204 S MAIN	LUST, UST, HIST UST	Higher	1088, 0.206, NE
5	GORE SHORT STOP	101 S MAIN	LUST, UST, HIST UST	Higher	1506, 0.285, NE
6	CHEROKEE_SAND PLANT		IHS OPEN DUMPS	Lower	1523, 0.288, East
7	WEBBERS FALLS PUBLIC	404 S GIBSON	LUST, UST, HIST UST	Higher	1578, 0.299, SSE
8	HAW PETROLEUM CO	HWY 64 & RAILROAD AV	LAST	Higher	1741, 0.330, NE
9	CIRCLE R FOOD MART #	100 N MAIN	LUST, UST	Higher	2172, 0.411, NE
10	B & J SERVICE STATIO	115 N RAILROAD STR	LAST	Higher	2270, 0.430, NE

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ---------- Federal Facility Site Information listing
SEMS ---------- Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS ---------- Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG ---------- RCRA - Large Quantity Generators
RCRA-SQG ---------- RCRA - Small Quantity Generators
RCRA-CESQG ---------- RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System
US ENG CONTROLS ---------- Engineering Controls Sites List

US INST CONTROL ---------- Sites with Institutional Controls

Federal ERNS list

ERNS ---------- Emergency Response Notification System

State- and tribal - equivalent CERCLIS

SHWS ---------- The Land Report

State and tribal landfill and/or solid waste disposal site lists

SWF/LF ---------- Permitted Solid Waste Disposal & Processing Facilities

State and tribal leaking storage tank lists

INDIAN LUST ---------- Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

FEMA UST ---------- Underground Storage Tank Listing
INDIAN UST ---------- Underground Storage Tanks on Indian Land

State and tribal institutional control / engineering control registries

INST CONTROL ---------- Institutional Control Sites

State and tribal voluntary cleanup sites

VCP ---------- Voluntary Cleanup Site Inventory
INDIAN VCP ---------- Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS ---------- Brownfield Sites

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ---------- A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY ---------- Recycling Facilities
INDIAN ODI ---------- Report on the Status of Open Dumps on Indian Lands
ODI ---------- Open Dump Inventory
DEBRIS REGION 9 ---------- Torres Martinez Reservation Illegal Dump Site Locations

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL ---------- Delisted National Clandestine Laboratory Register
US CDL ---------- National Clandestine Laboratory Register

Local Land Records

LIENS 2 ---------- CERCLA Lien Information

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
OK COMPLAINT	Oklahoma Complaint System Database

Other Ascertainable Records

RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated
FUDS	Formerly Used Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TSCA	Toxic Substances Control Act
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
INDIAN RESERV	Indian Reservations
FUSRAP	Formerly Utilized Sites Remedial Action Program
UMTRA	Uranium Mill Tailings Sites
LEAD SMELTERS	Lead Smelter Sites
US AIRS	Aerometric Information Retrieval System Facility Subsystem
US MINES	Mines Master Index File
ABANDONED MINES	Abandoned Mines
FINDS	Facility Index System/Facility Registry System
UXO	Unexploded Ordnance Sites
ECHO	Enforcement & Compliance History Information
DOCKET HWC	Hazardous Waste Compliance Docket Listing
FUELS PROGRAM	EPA Fuels Program Registered Listing
AIRS	Permitted AIRS Facility Listing
DRYCLEANERS	Drycleaner Facility Listing
Financial Assurance	Financial Assurance Information Listing
TIER 2	Tier 2 Data Listing
UIC	Underground Injection Wells Database Listing

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	EDR Proprietary Manufactured Gas Plants

EDR Hist Cleaner..... EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS..... Recovered Government Archive State Hazardous Waste Facilities List
RGA LF..... Recovered Government Archive Solid Waste Facilities List
RGA LUST..... Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

State and tribal leaking storage tank lists

LAST: The Leaking Aboveground Storage Tank database.

A review of the LAST list, as provided by EDR, and dated 05/30/2019 has revealed that there are 3 LAST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
GORE BAIT & TACKLE	***304 S MAIN***	***NE 1/8 - 1/4 (0.137 mi.)***	***3***	***9***
STATUS: Closed				
Facility Id: 6814218				
Close Date: 07/29/2010				
Close Date: 08/02/2007				
HAW PETROLEUM CO	HWY 64 & RAILROAD AV	NE 1/4 - 1/2 (0.330 mi.)	8	16
STATUS: Closed				
Facility Id: 6814352				
Close Date: 09/13/2010				
B & J SERVICE STATIO	115 N RAILROAD STR	NE 1/4 - 1/2 (0.430 mi.)	10	17
STATUS: Closed				
Facility Id: 6814403				
Close Date: 11/30/2011				

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Oklahoma Corporation Commission's Leaking UST list.

A review of the LUST list, as provided by EDR, and dated 05/30/2019 has revealed that there are 4 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
GORE SAV-ON GAS STATUS: Closed Facility Id: 6807862 Close Date: 08/17/2010	***204 S MAIN***	***NE 1/8 - 1/4 (0.206 mi.)***	***4***	***11***
GORE SHORT STOP STATUS: Closed Facility Id: 6809844 Close Date: 10/05/2018	***101 S MAIN***	***NE 1/4 - 1/2 (0.285 mi.)***	***5***	***13***
WEBBERS FALLS PUBLIC STATUS: Closed Facility Id: 5101390 Close Date: 07/05/2001	***404 S GIBSON***	***SSE 1/4 - 1/2 (0.299 mi.)***	***7***	***15***
CIRCLE R FOOD MART # STATUS: Closed Facility Id: 6814428 Close Date: 01/30/2008	***100 N MAIN***	***NE 1/4 - 1/2 (0.411 mi.)***	***9***	***16***

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Oklahoma Corporation Commission's State UST List, List II Version.

A review of the UST list, as provided by EDR, and dated 12/07/2018 has revealed that there are 3 UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
HIT & RUN Facility Id: 5102568 TankStatus: TOU	209 HWY 100	SSE 0 - 1/8 (0.016 mi.)	1	8
GORE BAIT & TACKLE Facility Id: 6814218 TankStatus: CIU	***304 S MAIN***	***NE 1/8 - 1/4 (0.137 mi.)***	***3***	***9***
GORE SAV-ON GAS Facility Id: 6807862 TankStatus: POU	***204 S MAIN***	***NE 1/8 - 1/4 (0.206 mi.)***	***4***	***11***

AST: The Aboveground Storage Tank database contains registered ASTs. The data come from the Oklahoma Corporation Commission's State AST List, List II Version.

A review of the AST list, as provided by EDR, and dated 12/07/2018 has revealed that there is 1 AST site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
GORE BAIT & TACKLE	***304 S MAIN***	***NE 1/8 - 1/4 (0.137 mi.)***	***3***	***9***
Facility Id: 6814218				
Tank Status: POU				

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Landfill / Solid Waste Disposal Sites

IHS OPEN DUMPS: A listing of all open dumps located on Indian Land in the United States.

A review of the IHS OPEN DUMPS list, as provided by EDR, and dated 04/01/2014 has revealed that there is 1 IHS OPEN DUMPS site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CHEROKEE_SAND PLANT		E 1/4 - 1/2 (0.288 mi.)	6	15

Local Lists of Registered Storage Tanks

HIST UST: This underground storage tank listing includes tank information through March 2003. This listing is no longer updated by the Oklahoma Corporation Commission.

A review of the HIST UST list, as provided by EDR, and dated 03/21/2003 has revealed that there are 2 HIST UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
GORE BAIT & TACKLE	***304 S MAIN***	***NE 1/8 - 1/4 (0.137 mi.)***	***3***	***9***
Facility Id: 6890406				
Tank Status: Currently in Use				
GORE SAV-ON GAS	***204 S MAIN***	***NE 1/8 - 1/4 (0.206 mi.)***	***4***	***11***
Facility Id: 6807862				
Tank Status: Temporarily Out of Use				

Other Ascertainable Records

DOD: Consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

A review of the DOD list, as provided by EDR, and dated 12/31/2005 has revealed that there is 1 DOD

site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ROBERT S. KERR LAKE		0 - 1/8 (0.000 mi.)	0	8

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR Hist Auto: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there is 1 EDR Hist Auto site within approximately 0.125 miles of the target property.

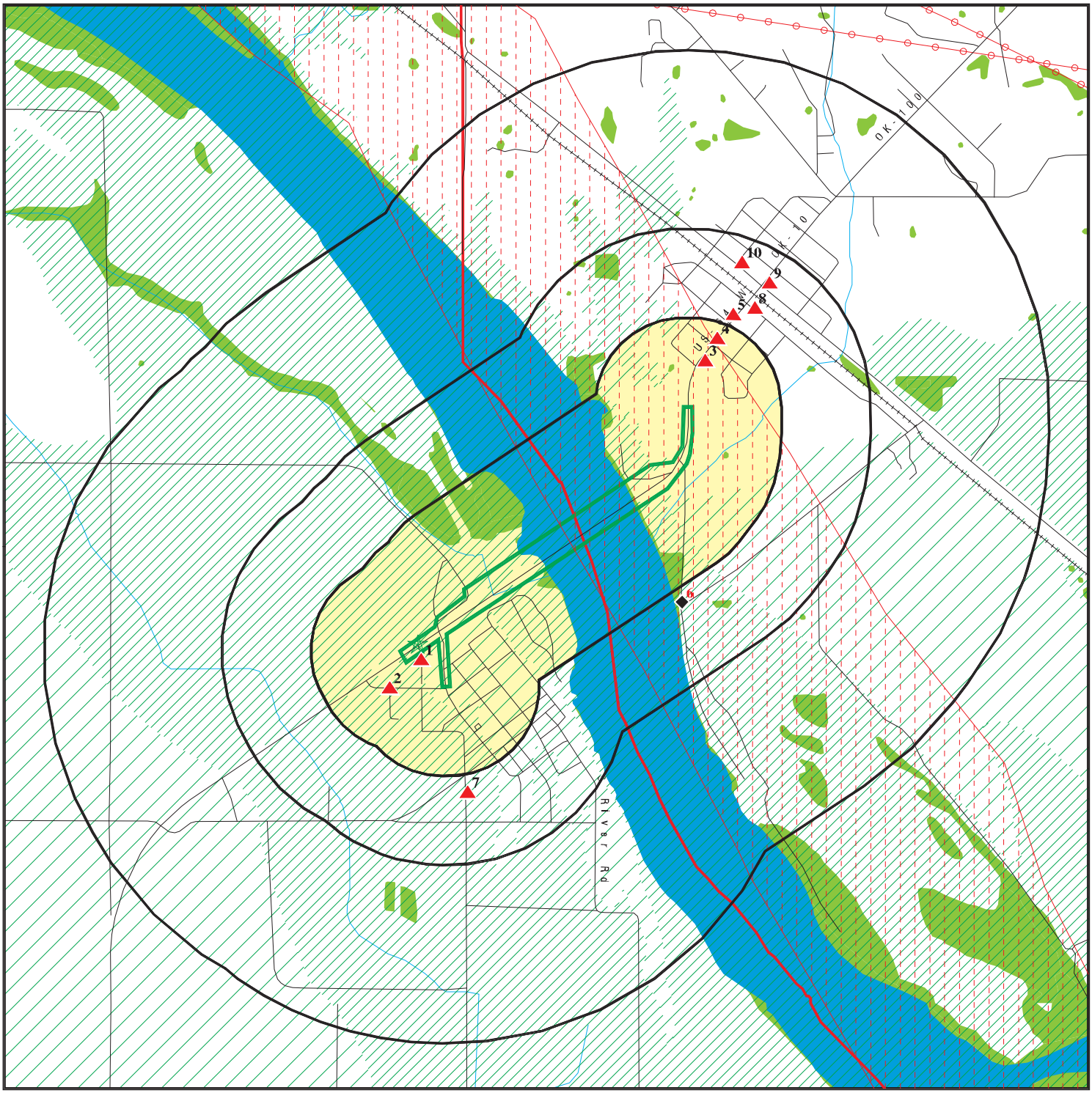
Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ROHMILLER OIL COMPAN	6TH & OAK STREET	SW 0 - 1/8 (0.084 mi.)	2	9

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 1 records.

Site Name	Database(s)
CITY OF FORT GIBSON	SWF/LF

OVERVIEW MAP - 5701571.2S



0 1/4 1/2 1 Miles

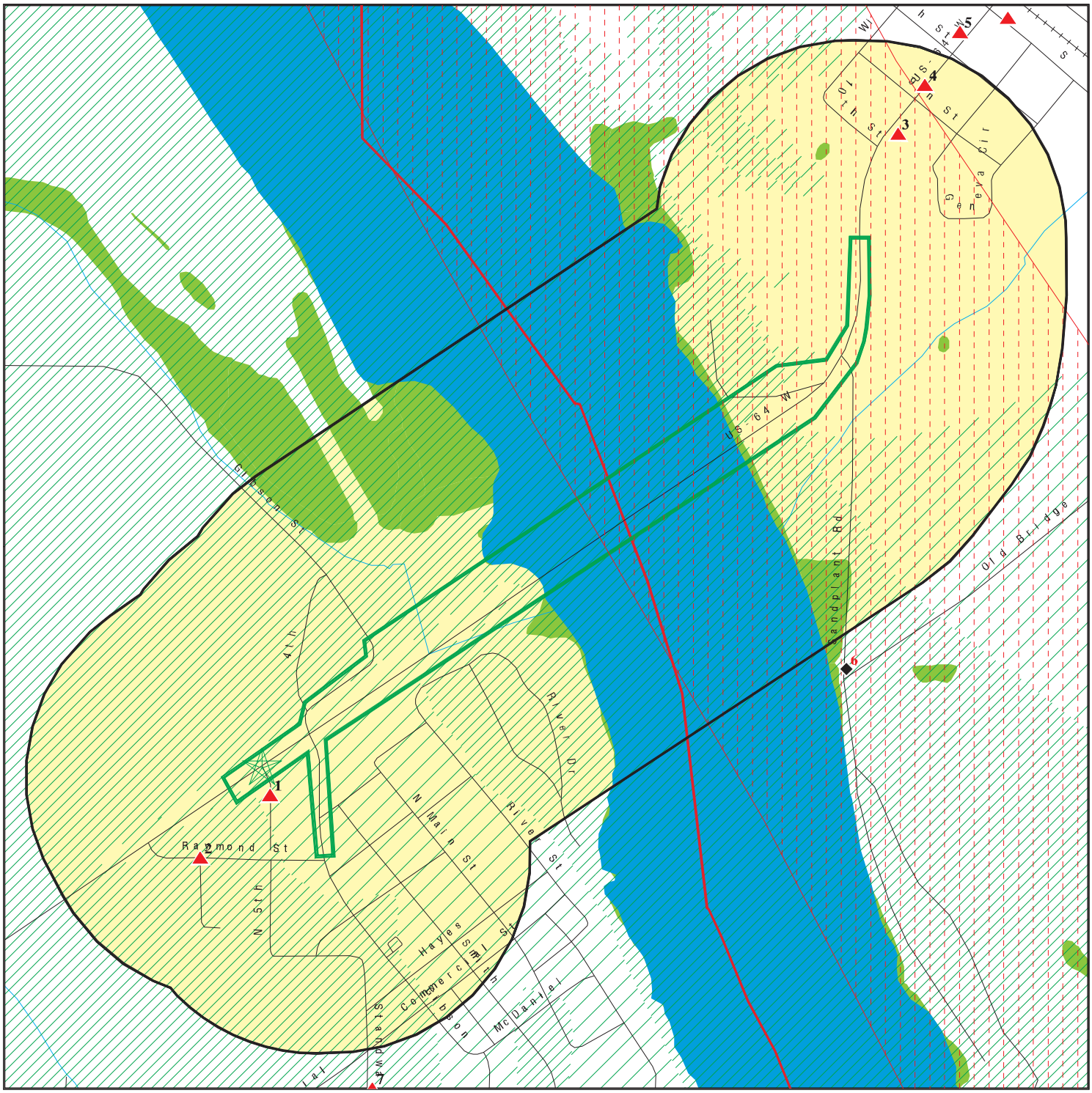
- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Power transmission lines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	CP&Y SH-100 MUSKOGEE COUNTY	CLIENT:	Enercon Services, Inc.
ADDRESS:	Highway 64 and North 5th Street Webbers Falls OK 74470	CONTACT:	Lauran Drummond
LAT/LONG:	35.514643 / 95.134679	INQUIRY #:	5701571.2s
		DATE:	June 27, 2019 7:32 pm

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DETAIL MAP - 5701571.2S



0 1/8 1/4 1/2 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	CP&Y SH-100 MUSKOGEE COUNTY	CLIENT:	Enercon Services, Inc.
ADDRESS:	Highway 64 and North 5th Street Webbers Falls OK 74470	CONTACT:	Lauran Drummond
LAT/LONG:	35.514643 / 95.134679	INQUIRY #:	5701571.2s
		DATE:	June 27, 2019 7:33 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equivalent CERCLIS								
SHWS	1.000		0	0	0	0	NR	0
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LAST	0.500		0	1	2	NR	NR	3
LUST	0.500		0	1	3	NR	NR	4
INDIAN LUST	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
UST	0.250		1	2	NR	NR	NR	3
AST	0.250		0	1	NR	NR	NR	1
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
INST CONTROL	0.500		0	0	0	NR	NR	0
State and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
SWRCY	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	1	NR	NR	1
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
US CDL	TP		NR	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
HIST UST	0.250		0	2	NR	NR	NR	2
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
OK COMPLAINT	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		1	0	0	0	NR	1
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
ECHO	TP		NR	NR	NR	NR	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
AIRS	TP		NR	NR	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
TIER 2	TP		NR	NR	NR	NR	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		1	NR	NR	NR	NR	1
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA HWS	TP		NR	NR	NR	NR	NR	0
RGA LF	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
RGA LUST	TP		NR	NR	NR	NR	NR	0
- Totals --		0	3	7	6	0	0	16

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

DOD **ROBERT S. KERR LAKE** **DOD** **CUSA139132**
Region **N/A**

ROBERT S. KERR LAKE (County), OK

< 1/8
1 ft.

DOD:

Feature 1:	Army Corps of Engineers DOD
Feature 2:	Not reported
Feature 3:	Not reported
URL:	Not reported
Name 1:	Robert S. Kerr Lake
Name 2:	Not reported
Name 3:	Not reported
State:	OK
DOD Site:	Yes
Tile name:	OKSEQUOYAH

---

1 **HIT & RUN** **UST** **U004133257**
SSE **209 HWY 100** **N/A**
< 1/8 **WEBBERS FALLS, OK 74470**
0.016 mi.
87 ft.

Relative:
Higher

Actual:
481 ft.

UST:

Facility ID:	5102568
Contact Name:	Troy And Tim Poteete
Contact Address:	P.O. Box 359
Contact Telephone:	9187085697
Contact City,St,Zip:	Webbers Falls, OK 74470
Lat/Long:	35.5141 / -95.1345

Tank ID:	1
Tank Status:	Temporarily Out Of Use
Total Capacity:	8000
Substance:	Gasoline
Date Installed:	04/03/1976
Tank Type:	UST
Closed Date:	Not reported
Decode of Tank Status:	Temporarily out of use
Closure Status:	Not reported
Tank Construction:	Single Walled
Tank Material:	Steel
Pipe Construction:	Single-Walled
Pipe Material:	Steel

Tank ID:	2
Tank Status:	Temporarily Out Of Use
Total Capacity:	3000
Substance:	Gasoline
Date Installed:	04/03/1976
Tank Type:	UST
Closed Date:	Not reported
Decode of Tank Status:	Temporarily out of use
Closure Status:	Not reported
Tank Construction:	Single Walled
Tank Material:	Steel
Pipe Construction:	Single-Walled
Pipe Material:	Steel

HIT & RUN (Continued) **U004133257**

Tank ID:	3
Tank Status:	Temporarily Out Of Use
Total Capacity:	3000
Substance:	Gasoline
Date Installed:	04/03/1976
Tank Type:	UST
Closed Date:	Not reported
Decode of Tank Status:	Temporarily out of use
Closure Status:	Not reported
Tank Construction:	Single Walled
Tank Material:	Steel
Pipe Construction:	Single-Walled
Pipe Material:	Steel

2
SW
< 1/8
0.084 mi.
441 ft.

ROHMILLER OIL COMPANY INC **EDR Hist Auto** **1021635002**
6TH & OAK STREET **N/A**
WEBBERS FALLS, OK 74470

Relative:
Higher

Actual:
480 ft.

EDR Hist Auto

Year:	Name:	Type:
1982	ROHMILLER OIL COMPANY INC	Petroleum Bulk Stations And Terminals

---

3
NE
1/8-1/4
0.137 mi.
722 ft.

GORE BAIT & TACKLE **LAST** **U003885869**
304 S MAIN **UST** **N/A**
GORE, OK 74435 **AST**
HIST UST

Relative:
Higher

Actual:
491 ft.

LAST:

Name:	GORE BAIT & TACKLE
Address:	304 S MAIN
City,State,Zip:	GORE, OK 74435
Case Number:	064-3236
Case Type:	Confirmed Release
Facility ID:	6814218
Status:	**Closed**
Lat/Long:	35.5313 / -95.1159
Tank Type:	**AST**
Release Date:	**06/01/2007**
Close Date:	**07/29/2010**

Name:	GORE BAIT & TACKLE
Address:	304 S MAIN
City,State,Zip:	GORE, OK 74435
Case Number:	SOR-3236
Case Type:	Suspicion of Release
Facility ID:	6814218
Status:	**Closed**
Lat/Long:	35.5313 / -95.1159
Tank Type:	**AST**
Release Date:	**06/01/2007**
Close Date:	**08/02/2007**

GORE BAIT & TACKLE (Continued) **U003885869**

UST:

Facility ID:	6814218
Contact Name:	Gore Bait and Tackle
Contact Address:	304 S Main
Contact Telephone:	9185216116
Contact City,St,Zip:	Gore, OK 74435
Lat/Long:	35.5313 / -95.1159
Tank ID:	4
Tank Status:	Currently In Use
Total Capacity:	14000
Substance:	Gasoline
Date Installed:	07/29/2002
Tank Type:	UST
Closed Date:	Not reported
Decode of Tank Status:	Currently in use
Closure Status:	Not reported
Tank Construction:	Single Walled
Tank Material:	Steel With Fiberglass
Pipe Construction:	Double-Walled
Pipe Material:	Fiberglass
Tank ID:	5
Tank Status:	Currently In Use
Total Capacity:	4000
Substance:	Diesel
Date Installed:	09/02/2003
Tank Type:	UST
Closed Date:	Not reported
Decode of Tank Status:	Currently in use
Closure Status:	Not reported
Tank Construction:	Single Walled
Tank Material:	Steel With Fiberglass
Pipe Construction:	Double-Walled
Pipe Material:	Fiberglass

AST:

Facility ID:	6814218
Contact Name:	Gore Bait and Tackle
Contact Address:	304 S Main
Contact Telephone:	9185216116
Contact City,St,Zip:	Gore, OK 74435
Lat/Long:	35.5313 / -95.1159
Tank ID:	1
Tank Status:	Permanently Out of Use
Total Capacity:	6000
Substance:	Gasoline
Install Date:	01/01/1983
Tank Type:	AST
Closed Date:	07/01/2002
Decode of Tank Status:	Permanently out of use
Closure Status:	Tank Removed From Ground
Tank Construction:	Double Walled
Tank Material:	Steel
Pipe Construction:	Single-Walled
Pipe Material:	Steel

GORE BAIT & TACKLE (Continued) **U003885869**

Tank ID: 2
Tank Status: Permanently Out of Use
Total Capacity: 2000
Substance: Diesel
Install Date: 01/01/1983
Tank Type: AST
Closed Date: Not reported
Decode of Tank Status: Permanently out of use
Closure Status: Tank Removed From Ground
Tank Construction: Single Walled
Tank Material: Steel
Pipe Construction: Single-Walled
Pipe Material: Steel

Tank ID: 3
Tank Status: Permanently Out of Use
Total Capacity: 8000
Substance: Gasoline
Install Date: 01/01/1983
Tank Type: AST
Closed Date: 07/01/2002
Decode of Tank Status: Permanently out of use
Closure Status: Tank Removed From Ground
Tank Construction: Double Walled
Tank Material: Steel
Pipe Construction: Single-Walled
Pipe Material: Steel

HIST UST:
Facility ID: 6890406
Owner Name: DAVID & PEGGY SULLIVAN
Owner Address: 304 S MAIN
Owner City,St,Zip: Gore, OK 74435
Tank ID: 4
Tank Status: Currently in Use
Installed Date: 7/29/2002 0:00:00
Tank Capacity: 14000
Product: Gasoline

4
NE
1/8-1/4
0.206 mi.
1088 ft.

GORE SAV-ON GAS **LUST U003429151**
204 S MAIN **UST N/A**
GORE, OK 74435 **HIST UST**

Relative:
Higher

Actual:
493 ft.

LUST:
Name: GORE SAV-ON GAS
Address: 204 S MAIN
City,State,Zip: GORE, OK 74435
Facility ID: 6807862
Case Number: 064-3466
Case Type: Confirmed Release
Tank Type: UST
Release Date: 02/04/2009
Close Date: 08/17/2010
Lat/Long: 35.5267 / -95.1187
Status: Closed

GORE SAV-ON GAS (Continued) **U003429151**

UST:

Facility ID:	6807862
Contact Name:	Diana Montgomery
Contact Address:	200 S MAINPO BOX 1009
Contact Telephone:	9184892755
Contact City,St,Zip:	Gore, OK 74435
Lat/Long:	35.5267 / -95.1187
Tank ID:	1
Tank Status:	Permanently Out Of Use
Total Capacity:	8000
Substance:	Gasoline
Date Installed:	06/01/1972
Tank Type:	UST
Closed Date:	02/03/2009
Decode of Tank Status:	Permanently out of use
Closure Status:	Tank Removed From Ground
Tank Construction:	Single Walled
Tank Material:	Steel
Pipe Construction:	Single-Walled
Pipe Material:	Steel
Tank ID:	2
Tank Status:	Permanently Out Of Use
Total Capacity:	6000
Substance:	Gasoline
Date Installed:	06/01/1972
Tank Type:	UST
Closed Date:	02/03/2009
Decode of Tank Status:	Permanently out of use
Closure Status:	Tank Removed From Ground
Tank Construction:	Single Walled
Tank Material:	Steel
Pipe Construction:	Single-Walled
Pipe Material:	Steel

HIST UST:

Facility ID:	6807862
Owner Name:	DIANA MONTGOMERY
Owner Address:	200 S MAIN PO BOX 1009
Owner City,St,Zip:	Gore, OK 74435
Tank ID:	1
Tank Status:	Temporarily Out of Use
Installed Date:	6/1/1972 0:00:00
Tank Capacity:	8000
Product:	Gasoline
Facility ID:	6807862
Owner Name:	DIANA MONTGOMERY
Owner Address:	200 S MAIN PO BOX 1009
Owner City,St,Zip:	Gore, OK 74435
Tank ID:	2
Tank Status:	Temporarily Out of Use
Installed Date:	6/1/1972 0:00:00
Tank Capacity:	6000
Product:	Gasoline

5
NE
1/4-1/2
0.285 mi.
1506 ft.

GORE SHORT STOP
101 S MAIN
GORE, OK 74435

LUST **U001885971**
UST **N/A**
HIST UST

Relative:
Higher

Actual:
494 ft.

LUST:

Name:	GORE SHORT STOP
Address:	101 S MAIN
City,State,Zip:	GORE, OK 74435
Facility ID:	6809844
Case Number:	064-2433
Case Type:	Confirmed Release
Tank Type:	**UST**
Release Date:	**11/17/2000**
Close Date:	**10/05/2018**
Lat/Long:	35.5285 / -95.1188
Status:	**Closed**

UST:

Facility ID:	6809844
Contact Name:	Danielson Oil Co of OK LLC
Contact Address:	2201 Tecumseh Drive
Contact Telephone:	4055793835
Contact City,St,Zip:	Norman, OK 73069
Lat/Long:	35.5285 / -95.1188
Tank ID:	1
Tank Status:	Permanently Out Of Use
Total Capacity:	1000
Substance:	Gasoline
Date Installed:	01/01/1984
Tank Type:	UST
Closed Date:	06/06/2017
Decode of Tank Status:	Permanently out of use
Closure Status:	Tank Removed From Ground
Tank Construction:	Single Walled
Tank Material:	Steel
Pipe Construction:	Single-Walled
Pipe Material:	Fiberglass
Tank ID:	2
Tank Status:	Permanently Out Of Use
Total Capacity:	2000
Substance:	Diesel
Date Installed:	01/01/1984
Tank Type:	UST
Closed Date:	10/13/2017
Decode of Tank Status:	Permanently out of use
Closure Status:	Tank Removed From Ground
Tank Construction:	Single Walled
Tank Material:	Steel
Pipe Construction:	Single-Walled
Pipe Material:	Fiberglass
Tank ID:	3
Tank Status:	Permanently Out Of Use
Total Capacity:	8000
Substance:	Gasoline

GORE SHORT STOP (Continued) **U001885971**

Date Installed: 01/01/1984
Tank Type: UST
Closed Date: 10/13/2017
Decode of Tank Status: Permanently out of use
Closure Status: Tank Removed From Ground
Tank Construction: Single Walled
Tank Material: Steel
Pipe Construction: Single-Walled
Pipe Material: Fiberglass

Tank ID: 4
Tank Status: Permanently Out Of Use
Total Capacity: 4000
Substance: Gasoline
Date Installed: 01/01/1984
Tank Type: UST
Closed Date: 10/13/2017
Decode of Tank Status: Permanently out of use
Closure Status: Tank Removed From Ground
Tank Construction: Single Walled
Tank Material: Steel
Pipe Construction: Single-Walled
Pipe Material: Fiberglass

HIST UST:
Facility ID: 6809844
Owner Name: Cresent Oil Company
Owner Address: P.O. Box 667
Owner City,St,Zip: Independence, KS 67301
Tank ID: 1
Tank Status: Currently in Use
Installed Date: 1/1/1984 0:00:00
Tank Capacity: 1000
Product: Gasoline

Facility ID: 6809844
Owner Name: Cresent Oil Company
Owner Address: P.O. Box 667
Owner City,St,Zip: Independence, KS 67301
Tank ID: 2
Tank Status: Currently in Use
Installed Date: 1/1/1984 0:00:00
Tank Capacity: 2000
Product: Gasoline

Facility ID: 6809844
Owner Name: Cresent Oil Company
Owner Address: P.O. Box 667
Owner City,St,Zip: Independence, KS 67301
Tank ID: 3
Tank Status: Currently in Use
Installed Date: 1/1/1984 0:00:00
Tank Capacity: 8000
Product: Diesel

Facility ID: 6809844
Owner Name: Cresent Oil Company
Owner Address: P.O. Box 667

GORE SHORT STOP (Continued) **U001885971**

Owner City,St,Zip: Independence, KS 67301
Tank ID: 4
Tank Status: Currently in Use
Installed Date: 1/1/1984 0:00:00
Tank Capacity: 6000
Product: Diesel

---

6 **CHEROKEE_SAND PLANT ROAD DUMP** **IHS OPEN DUMPS** **1016945113**
East **N/A**
1/4-1/2 **, OK**
0.288 mi.
1523 ft.

Relative: **Lower**
Actual: **470 ft.**

IHS OPEN DUMPS:
EPA Region: 6
IHS Area: OK
Tribe: CHEROKEE NATION, OK
System Type: Solid Waste Disposal Site
Status: Active
Condition: Open Dump - Surface
Condition Date: 2010-04-26 00:00:00
Health Threat: 1-Low
Health Threat Score: 176
Contents: D
Surface Area (acres): 4.0000000000000001E-2
N Latitude: 35.516413999999997
W Longitude: 95.121531000000004

---

7 **WEBBERS FALLS PUBLIC SCHOOL** **LUST** **U001884036**
SSE **404 S GIBSON** **UST** **N/A**
1/4-1/2 **WEBBERS FALLS, OK 74470** **HIST UST**
0.299 mi.
1578 ft.

Relative: **Higher**
Actual: **480 ft.**

LUST:
Name: WEBBERS FALLS PUBLIC SCHOOL
Address: 404 S GIBSON
City,State,Zip: WEBBERS FALLS, OK 74470
Facility ID: 5101390
Case Number: 064-0230
Case Type: Confirmed Release
Tank Type: **UST**
Release Date: **06/27/1991**
Close Date: **07/05/2001**
Lat/Long: 35.5087 / -95.1322
Status: **Closed**

UST:
Facility ID: 5101390
Contact Name: Webbers Falls Public School
Contact Address: 404 S GIBSON
Contact Telephone: 9184642580
Contact City,St,Zip: Webbers Falls, OK 74470
Lat/Long: 35.5087 / -95.1322

Tank ID: 1

WEBBERS FALLS PUBLIC SCHOOL (Continued) **U001884036**

Tank Status:	Permanently Out Of Use
Total Capacity:	650
Substance:	Gasoline
Date Installed:	04/01/1956
Tank Type:	UST
Closed Date:	06/20/1991
Decode of Tank Status:	Permanently out of use
Closure Status:	Tank Removed From Ground
Tank Construction:	Single Walled
Tank Material:	Steel
Pipe Construction:	Single-Walled
Pipe Material:	Steel

HIST UST:

Facility ID:	5101390
Owner Name:	WEBBERS FALLS PUBLIC SCHOOL
Owner Address:	404 S GIBSON
Owner City,St,Zip:	Webbers Falls, OK 74470
Tank ID:	1
Tank Status:	Permanently Out of Use
Installed Date:	4/1/1956 0:00:00
Tank Capacity:	650
Product:	Gasoline

8
NE
1/4-1/2
0.330 mi.
1741 ft.

HAW PETROLEUM CO **LAST** **S109417821**
HWY 64 & RAILROAD AVE **N/A**
GORE, OK 74435

Relative:
Higher

Actual:
494 ft.

LAST:

Name:	HAW PETROLEUM CO
Address:	HWY 64 & RAILROAD AVE
City,State,Zip:	GORE, OK 74435
Case Number:	064-3366
Case Type:	Confirmed Release
Facility ID:	6814352
Status:	**Closed**
Lat/Long:	35.5284 / -95.1179
Tank Type:	**AST**
Release Date:	**04/07/2008**
Close Date:	**09/13/2010**

9
NE
1/4-1/2
0.411 mi.
2172 ft.

CIRCLE R FOOD MART #2 **LUST** **U004239818**
100 N MAIN **UST** **N/A**
GORE, OK 74435

Relative:
Higher

Actual:
498 ft.

LUST:

Name:	CIRCLE R FOOD MART #2
Address:	100 N MAIN
City,State,Zip:	GORE, OK 74435
Facility ID:	6814428
Case Number:	064-3171
Case Type:	Confirmed Release
Tank Type:	**UST**

CIRCLE R FOOD MART #2 (Continued) **U004239818**

Release Date: **10/26/2006**
Close Date: **01/30/2008**
Lat/Long: 35.5295 / -95.1172
Status: **Closed**

UST:
Facility ID: 6814428
Contact Name: Larry C. Pack
Contact Address: 123 Genera Circle
Contact Telephone: 9183606090
Contact City,St,Zip: Gore, OK 74435
Lat/Long: 35.5295 / -95.1172

Tank ID: 4
Tank Status: Currently In Use
Total Capacity: 12000
Substance: Gasoline
Date Installed: 04/09/2007
Tank Type: UST
Closed Date: Not reported
Decode of Tank Status: Currently in use
Closure Status: Not reported
Tank Construction: Single Walled
Tank Material: Steel With Fiberglass
Pipe Construction: Double-Walled
Pipe Material: Flexible Plastic

Tank ID: 5
Tank Status: Currently In Use
Total Capacity: 12000
Substance: Diesel
Date Installed: 04/09/2007
Tank Type: UST
Closed Date: Not reported
Decode of Tank Status: Currently in use
Closure Status: Not reported
Tank Construction: Single Walled
Tank Material: Steel With Fiberglass
Pipe Construction: Double-Walled
Pipe Material: Flexible Plastic

10
NE
1/4-1/2
0.430 mi.
2270 ft.

B & J SERVICE STATION **LAST** **S109683051**
115 N RAILROAD STR **N/A**
GORE, OK 74435

Relative:
Higher

Actual:
498 ft.

LAST:
Name: B & J SERVICE STATION
Address: 115 N RAILROAD STR
City,State,Zip: GORE, OK 74435
Case Number: 064-3515
Case Type: Confirmed Release
Facility ID: 6814403
Status: **Closed**
Lat/Long: 35.5283 / -95.1159
Tank Type: **AST**
Release Date: **06/23/2009**

B & J SERVICE STATION (Continued) **S109683051**

Close Date: **11/30/2011**

Count: 1 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
MUSKOGEE COUNTY	S106496766	CITY OF FORT GIBSON	SW/4 NW/4 OF S11 T15N R19E (LO		SWF/LF

EDR ZIP Code Scan Report

ZIP	EDR-ID	Facility ID	Name	Address	Map/Dir/Dist	City	State	Databases
** - Indicates location may or may not be in requested radius. Site has not been assigned a latitude/longitude coordinate. Further review recommended.								
74435	1019968297		DAILY EXPRESS DRY CLEANING		**	GORE	OK	EDR Historical Cleaners
74435	1024392842	110070305110	SEQUOYAH FUELS CORP.	I-40 & HIGHWAY 10	**	GORE	OK	FINDS
74435	1003875423	OKD981517279	KERR-MCGEE SEQUAYAH FACILITY	I-40 & HWY 10		GORE	OK	CERCLIS-NFRAP, ICIS
74435	1016074522	110001224719	SEQUOYAH FUELS CORPORATION	I-40 & HWY 10		GORE	OK	FINDS
74435	92116367			I-64 & HWY 10	**	GORE	OK	ERNS
74435	U001232269	6804484	FIN & FEATHER RESORT INC	RT 1 BOX 194	**	GORE	OK	HIST UST
74435	U001885940	6814386	STRAYHORN LANDING INC	RT 1 BOX 253		GORE	OK	HIST UST, AST, UST
74435	U003580374	6813774	TENKILLER PROJECT OFFICE	RT 1 BOX 259		GORE	OK	HIST UST, UST
74435	U004132383		TENKILLER POWER HOUSE	RT 1 BOX 259P		GORE	OK	UST
74435	U003580325	6803355	TENKILLER POWER HOUSE	RT 1 BOX 259P	**	GORE	OK	HIST UST
74435	S111190748		SEQUOYAH FUELS FACILITY	HIGHWAY 10 & I-40		GORE	OK	TIER 2
74435	S112037272		SEQUOYAH FUELS FACILITY	HIGHWAY 10 & I-40		GORE	OK	TIER 2
74435	1013789993		SEQUOYAH FUELS CORP.	HIGHWAY 10 & I-40		GORE	OK	
74435	S107839632	FATR20063WCJYM046L88 -- SEQUOYAH FUELS FACILITY -- HI		GHWAY 10 & I-40		GORE	OK	TIER 2
74435	1018313044	110064634212	SEQUOYAH FUELS CORP.	HIGHWAY 10 & I-40		GORE	OK	ICIS, FINDS
74435	1020437047		DEERVILLE SPORTSMAN CENTER	HWY 10 A 9 MI NW	**	GORE	OK	EDR Historical Auto Stations
74435	1017385534	110062738596	GBT REALTY CORP / PARADISE HILLS DE	HWY 10 AND INDIAN RD		GORE	OK	ICIS, FINDS
74435	1020629597		GORE SHORT STOP	HWY 10 S	**	GORE	OK	EDR Historical Auto Stations
74435	1009319664	110024461296	GORE PUBLIC WORKS AUTHORITY	100301 HWY 100 NORTH		GORE	OK	FINDS
74435	S117404637		METHODIST BOYS RANCH	97706 HWY 100		GORE	OK	AIRS
74435	1017408488	110063224611	VERIZON WIRELESS / METHODIST BOYS	97706 HWY 100		GORE	OK	FINDS
74435	1021069236		JOLLY ROGERS RESTAURANT	HWY 100	**	GORE	OK	EDR Historical Auto Stations
74435	1021775482		WOODYS SERVICE STATION	HWY 100 N	**	GORE	OK	EDR Historical Auto Stations
74435	U004132385		FIN & FEATHER RESORT INC	445889 HWY 10A		GORE	OK	AST, UST
74435	1016217651	110006868087	WEBBERS FALLS LOCK AND DAM 16	HWY 10A N 3M	**	GORE	OK	FINDS
74435	U003182102	6803318	WEBBERS FALLS PROJECT OFFICE	RT 2 BOX 21		GORE	OK	HIST UST, AST, UST
74435	1004578504	OK2891632463	US DOE SWPA GORE MAIN FAC	RTE 2 BOX 12-1 PO BOX 728	**	GORE	OK	PADS
74435	U004133280		U.S. ARMY CORPS OF ENGINEERS	ROUTE 2, BOX 21		GORE	OK	UST
74435	U001228675	5107842	U.S. ARMY CORPS OF ENGINEERS	ROUTE 2, BOX 21	**	GORE	OK	HIST UST
74435	S120900607		QUIK STOP GROCERY AND GAS	30505 S 4250 RD		GORE	OK	LAST
74435	U004108441	6814399	QUIK STOP GROCERY AND GAS	30505 S 4250 RD		GORE	OK	AST, UST
74435	S109417821		HAW PETROLEUM CO	HWY 64 & RAILROAD AVE	8, NE, 1 - 2	GORE	OK	LAST
74435	A100052338	6814352	HAW PETROLEUM CO	HWY 64 & RAILROAD AVE		GORE	OK	AST
74435	1021340972		CORLEY ARBIE SERVICE STATION	HWY 64-10	**	GORE	OK	EDR Historical Auto Stations
74435	S112053245		STRAYHORN MARINA INC.	446547 EAST 965 ROAD	**	GORE	OK	TIER 2
74435	1021375437		BUSSELL OIL & WRECKER CO	<	**	GORE	OK	EDR Historical Auto Stations
74435	1022230413		CORLEY ARBIE SERVICE STATION	<	**	GORE	OK	EDR Historical Auto Stations
74435	1021386494		R & B OIL CO	<	**	GORE	OK	EDR Historical Auto Stations
74435	1021350440		WOODIES SERVICE STATION	<	**	GORE	OK	EDR Historical Auto Stations
74435	1005777177		SWQUOYAH FUELS	I-4- AND HIGHWAY 10		GORE	OK	FTTS
74435	1006016762		SEQUOYAH FUELS CORPORATION	I-40 AND HIGHWAY 10		GORE	OK	MLTS
74435	92145196			BOX 610	**	GORE	OK	ERNS
74435	1005499126	110011007613	GORE WWT	PO BOX 181		GORE	OK	FINDS
74435	U001884123	5112172	WEBBERS FALLS L & D 16	PO BOX 690		GORE	OK	HIST UST, UST
74435	U001624372	6804128	SEQUOYAH FUELS CORPORATION	I-40 HWY 10 P.O. BOX 610	**	GORE	OK	HIST UST
74435	U004132384		SEQUOYAH FUELS CORPORATION	I-40 HWY 10 P.O. BOX 610		GORE	OK	UST
74435	S112047138		GRDA--GORE SUBSTATION	INTERSECTION OF LOCK & DAM 16 RD., &	**	GORE	OK	TIER 2
74435	S111202400		GRDA--GORE SUBSTATION	INTERSECTION OF LOCK & DAM 16 RD., &	**	GORE	OK	TIER 2
74435	1021318889		CORLEYS OIL COMPANY	JCT HWY 64 10 100	**	GORE	OK	EDR Historical Auto Stations
74435	1020207540		CORLEYS OIL COMPANY	JCT HWY 64-10-100	**	GORE	OK	EDR Historical Auto Stations
74435	U004083192	6814428	CIRCLE R FOOD MART #2	100 N MAIN		GORE	OK	AST
74435	1021572786		MANNONS SERVICE STATION	100 N MAIN		GORE	OK	EDR Historical Auto Stations
74435	U004239818		CIRCLE R FOOD MART #2	100 N MAIN	9, NE, 1 - 2	GORE	OK	LUST, UST
74435	U001885944	6803949	CORLEY OIL COMPANY	100 NORTH MAIN		GORE	OK	HIST UST, UST
74435	U001885971	6809844	GORE SHORT STOP	101 S MAIN	5, NE, 1 - 2	GORE	OK	HIST UST, LUST, UST
74435	1020635105		GORE SHORT STOP	101 S MAIN ST		GORE	OK	EDR Historical Auto Stations

EDR ZIP Code Scan Report

ZIP	EDR-ID	Facility ID	Name	Address	Map/Dir/Dist	City	State	Databases
74435	U003429151	6807862	GORE SAV-ON GAS	204 S MAIN	4, NE, 1 - 2	GORE	OK	HIST UST, LUST, UST
74435	U001885948	6804532	SODA STEVE'S LLC	300 N MAIN		GORE	OK	HIST UST, UST
74435	1021820104		RAINBOW MART	300 N MAIN ST		GORE	OK	EDR Historical Auto Stations
74435	U003885869	6814218	GORE BAIT & TACKLE	304 S MAIN	3, ENE, 1 - 2	GORE	OK	HIST UST, AST, LAST, UST
74435	1021518573		GORE SHORT STOP	MAIN & RAILROAD ST	**	GORE	OK	EDR Historical Auto Stations
74435	1020264307		GORE SHORT STOP	MAIN RAILROAD ST	**	GORE	OK	EDR Historical Auto Stations
74435	A100052340	6819329	TNT BAIT & TACKLE	1 1/2 MI N OF GORE ON HWY 100		GORE	OK	AST
74435	1011836416		S.R.S., INC.	1 MILES SO. OF GORE, E. OF HWY 64		GORE	OK	RMP
74435	1017430906	110000713835	S.R.S., INC.	1 MILES SO. OF GORE, E. OF HWY 64		GORE	OK	FINDS
74435	1003875754	OKD987087566	GORE RIVERBED	2.75 MILES SOUTHEAST OF GORE		GORE	OK	CERCLIS-NFRAP
74435	1005488078	110009154681	SOUTER CONSTRUCTIONIES-GORE #2	4 MILES N-NE OF GORE OKLA		GORE	OK	FINDS
74435	1022194571		RAINBOW MART	300 N MN ST	**	GORE	OK	EDR Historical Auto Stations
74435	1016220924	110007386471	SOUTER CONST CO INC / GORE ROCK CF	4 MI N & LEFT INTO SITE	**	GORE	OK	FINDS
74435	1004578235		GORE PUBLIC SCHOOLS	1200 NORTHWAY 10, 4TH & WINN	**	GORE	OK	FTTS
74435	1016286894	110011429506	GORE PUBLIC SCHOOLS	1200 NORTHWAY 10, 4TH & WINN	**	GORE	OK	FINDS
74435	U001885939	6802399	GORE PUBLIC SCHOOL	P O BOX 580		GORE	OK	HIST UST, UST
74435	S109683051		B & J SERVICE STATION	115 N RAILROAD STR	10, NE, 1 - 2	GORE	OK	LAST
74435	A100052320	6814403	B & J SERVICE STATION	115 N RAILROAD STR		GORE	OK	AST
74435	1021521276		HAW PETROLEUM CO	RAILROAD & MAIN	**	GORE	OK	EDR Historical Auto Stations
74435	1020690120		HAW PETROLEUM CO	RAILROAD & MAIN ST	**	GORE	OK	EDR Historical Auto Stations
74435	1020436744		HAW PETROLEUM CO	RAILROAD MAIN ST	**	GORE	OK	EDR Historical Auto Stations
74435	1004579697		SOUTER CONST CO INC / GORE ROCK CF	200 9TH ST	**	GORE	OK	
74435	1016942823		VERIZON WIRELESS / GORE	329 1/2 STEVE OWENS	**	GORE	OK	
74435	1017374599	110061072360	VERIZON WIRELESS / GORE	329 1/2 STEVE OWENS	**	GORE	OK	FINDS
74435	S117056631		GORE	329 1/2 STEVE OWENS		GORE	OK	AIRS
74470	U001884078	5107091	WEBBERS FALLS FINA FUEL STOP	I-40 & COUNTY RD		WEBBERS FALLS	OK	HIST UST
74470	U001228709	5108725	LOVE'S COUNTRY STORES, INC.	I-40 & COUNTY RD		WEBBERS FALLS	OK	HIST UST
74470	U004133276		WEBBERS FALLS FINA FUEL STOP	I-40 & COUNTY RD		WEBBERS FALLS	OK	LUST, UST
74470	U004194635		LOVE'S TRAVEL STOP #255	I-40 & HWY 100		WEBBERS FALLS	OK	LUST, UST
74470	1021245575		STEPHENS OIL INC	I-40 & JUNCTION HWY 100	**	WEBBERS FALLS	OK	EDR Historical Auto Stations
74470	1005832518	110011855411	UAP SOUTHWEST	I-40 & ROSS		WEBBERS FALLS,	OK	FINDS
74470	U001228711	5108739	MR TIP'S BAIT SHOP	RT 1 BOX 300 T		WEBBERS FALLS	OK	HIST UST, LUST, UST
74470	1004768492	OK5960099831	US ARMY COE WEBBERS FALLS PROJEC	HWY 10 A 5M NW	**	WEBBERS FALLS	OK	RCRA-CESQG
74470	1016212210	110006112535	US ARMY COE WEBBERS FALLS PROJEC	HWY 10 A 5M NW	**	WEBBERS FALLS	OK	FINDS
74470	U004133257		HIT & RUN	209 HWY 100	1, South, 0 - 1/8	WEBBERS FALLS	OK	UST
74470	1000311762	110007729761	HORNE SPRAY CO INC	HWY 100		WEBBERS FALLS	OK	FINDS
74470	1020209763		STARR TRANSPORTING INC	HWY 100 AT I-40	**	WEBBERS FALLS	OK	EDR Historical Auto Stations
74470	1016940118		AMERICAN TOWER CORP / WEBBERS FAI	14869 S 100TH ST E	**	WEBBERS FALLS	OK	
74470	S116679856		WEBBERS FALLS OK 308194	14869 S 100TH ST E		WEBBERS FALLS	OK	AIRS
74470	1016826211	110058903557	AMERICAN TOWER CORP / WEBBERS FAI	14869 S. 100TH ST E.	**	WEBBERS FALLS	OK	FINDS
74470	1021708883		LOVES COUNTRY STORES INC	I 40 HWY 100	**	WEBBERS FALLS	OK	EDR Historical Auto Stations
74470	S110465425		CROP PRODUCTION SERVICES	302 HIGHWAY 64 WEST		WEBBERS FALLS	OK	TIER 2
74470	1023391793	110067114054	CROP PRODUCTION SERVICES 5019	302 HIGHWAY 64 WEST	**	WEBBERS FALLS	OK	FINDS
74470	S111190679		CROP PRODUCTION SERVICES WEBBERS	302 HIGHWAY 64 WEST	**	WEBBERS FALLS	OK	TIER 2
74470	1012194972		CROP PRODUCTION SERVICES 5019	302 HWY 64 W	**	WEBBERS FALLS	OK	SSTS
74470	1020144177		R & B OIL CO	HWY 64 COMMERCIAL	**	WEBBERS FALLS	OK	EDR Historical Auto Stations
74470	1020602817		R & B OIL COMPANY INC	HWY 64 COMMERCIAL ST	**	WEBBERS FALLS	OK	EDR Historical Auto Stations
74470	1021367033		PEARSON GEORGE	<	**	WEBBERS FALLS	OK	EDR Historical Auto Stations
74470	1021367269		R & B OIL CO	<	**	WEBBERS FALLS	OK	EDR Historical Auto Stations
74470	1021350437		EDWARDS CARL G	<	**	WEBBERS FALLS	OK	EDR Historical Auto Stations
74470	1004769067	110004762668	SRS INC	412 COMMERCIAL ST		WEBBERS FALLS	OK	RCRA-CESQG, FINDS
74470	U001884036	5101390	WEBBERS FALLS PUBLIC SCHOOL	404 S GIBSON	7, South, 1/4 - 1/2	WEBBERS FALLS	OK	HIST UST, LUST, UST
74470	A100326949		S. WEBBERS FALLS (TU0298)	104 N. HIGHWAY 100	**	WEBBERS FALLS	OK	AST
74470	1016349057	110038752917	OK TRADING POST	218 NORTH HIGHWAY 100		WEBBERS FALLS	OK	US BROWNFIELDS, FINDS
74470	S120949397		CROP PRODUCTION SERVICES/LOCATIO	302 WEST HIGHWAY	**	WEBBERS FALLS	OK	TIER 2

EDR ZIP Code Scan Report

ZIP	EDR-ID	Facility ID	Name	Address	Map/Dir/Dist	City	State	Databases
74470	S118313595		CROP PRODUCTION SERVICES	302 WEST HIGHWAY 64	**	WEBBERS FALLS	OK	TIER 2
74470	1020516829		LOVES TRVL STOPS CNTRY STORES	I-40 HIGHWAY 100	**	WEBBERS FALLS	OK	EDR Historical Auto Stations
74470	U001884044	5102568	HIT & RUN GRO.	HIWAY 64	**	WEBBERS FALLS	OK	HIST UST
74470	S110656824		SOUTH WEBBERS FALLS	104 N HWY 100		WEBBERS FALLS	OK	AIRS
74470	1012218483	110040506315	NEW CINGULAR WIRELESS PCS LLC DBA	104 N HWY 100		WEBBERS FALLS	OK	FINDS
74470	S118313596		CROP PRODUCTION SERVICES	302 WEST HWY 64	**	WEBBERS FALLS	OK	TIER 2
74470	1021672420		LOVES TRAVEL STOPS	I-40 HWY 100	**	WEBBERS FALLS	OK	EDR Historical Auto Stations
74470	1020836411		LOVES COUNTRY STORES INC	I40 HWY 100	**	WEBBERS FALLS	OK	EDR Historical Auto Stations
74470	U001884104	5108738	STOP 2 SHOP	JCT HWY 100 & 64		WEBBERS FALLS	OK	HIST UST, LUST, UST
74470	S110468067		AT&T - OK2980	JUNCTION OF HWY 100 & 64 (SOUTH 1 BL		GORE	OK	TIER 2
74470	U001228750	5112378	CARL EDWARDS	101 MAIN & COMMERCIAL		WEBBERS FALLS	OK	HIST UST, LUST, UST
74470	1020546274		EDWARDS SERVICE STATION	101 S MAIN	**	WEBBERS FALLS	OK	EDR Historical Auto Stations
74470	1021280527		EDWARDS SERVICE STATION	101 S MAIN ST	**	WEBBERS FALLS	OK	EDR Historical Auto Stations
74470	1020207141		COURTNEY JIM E & IRIS A	MAIN HWY	**	WEBBERS FALLS	OK	EDR Historical Auto Stations
74470	1020806976		EDWARDS CARL G	MAIN ST	**	WEBBERS FALLS	OK	EDR Historical Auto Stations
74470	1015735874	OKD033158106	HORNE SPRAY CO INC	.5 MI N OF I-40,WEBBERS FALLS		WEBBER FALLS	OK	CERCLIS-NFRAP, RCRA-NonGen
74470	1020740134		HEDIGER JOHN	1 1/2 MI S OF CITY I-40	**	WEBBERS FALLS	OK	EDR Historical Auto Stations
74470	1022248949		WEBBERS FALLS TRUCK STOP	1 1/2 MI S OF CY ON I-40	**	WEBBERS FALLS	OK	EDR Historical Auto Stations
74470	1014826050	110040757400	DUIT CONST CO INC / ERIE MG 8297	1.7 MILES SW OF	**	WEBBERS FALLS	OK	FINDS
74470	1010570303		UAP DISTRIBUTION, INC.	1/2 MI N I 40 & ROSS	**	WEBBERS FALLS	OK	SSTS
74470	1009307582		UAP SOUTHERN PLAINS	1/2 MI N I-40 & ROSS	**	WEBBERS FALLS	OK	SSTS
74470	1012053645		UAP-SOUTHWEST	1/2 MI N I-40 & ROSS	**	WEBBERS FALLS		SSTS
74470	1021635002		ROHMILLER OIL COMPANY INC	6TH & OAK STREET	2, SW, 1/8 - 1/4	WEBBERS FALLS	OK	EDR Historical Auto Stations
74470	1020374103		EASY STOP STATION	NORTH OF CITY	**	WEBBERS FALLS	OK	EDR Historical Auto Stations
74470	1020286323		SMOKEYS INDUSTRIES	SOUTH OF TOWN	**	WEBBERS FALLS	OK	EDR Historical Auto Stations
74470	1020993668		S & S TRUCK STOP	WEST OF CITY	**	WEBBERS FALLS	OK	EDR Historical Auto Stations
74470	1021999096		R & B OIL COMPANY INC	ONE BLOCK SOUTH OF BANK	**	WEBBERS FALLS	OK	EDR Historical Auto Stations
74470	1023679583	OKR000033464	ODOT/JK INDUSTRIES INC NBI 17004 PRO	OK-100 OVER I-40 BRIDGE A	**	WEBBERS FALLS	OK	RCRA-NonGen
74470	1023710504	110070122492	ODOT/JK INDUSTRIES INC NBI 17004 PRO	OK-100 OVER I-40 BRIDGE A	**	WEBBERS FALLS	OK	FINDS
74470	1024386899	110070292269	U.S. DOL-OSHA OKLAHOMA CITY AREA O	14300 POWERHOUSE ROAD	**	WEBBERS FALLS	OK	FINDS
74470	1024389869	110070296065	U.S. ARMY CORPS OF ENGINEERS, TULS/	14300 POWERHOUSE ROAD	**	WEBBERS FALLS	OK	FINDS
74470	1013825895	110009002060	WEBBERS FALLS, CITY OF	101 N. RIVER ROAD		WEBBERS FALLS	OK	FINDS
74470	S120948982		CINGULAR--DBS-WEBBER FALLS - USID9	D4385 ROAD AT MUSKOGEE TURNPIKE	**	WEBBER FALLS	OK	TIER 2
74470	1010329938	OKR000021691	CLEAN HARBORS OK AG COLLECTION	103 ROSS RD		WEBBERS FALLS	OK	RCRA-NonGen
74470	1012197051		UAP DISTRIBUTION, INC.	103 ROSS RD	**	WEBBERS FALLS	OK	SSTS
74470	1010429275	110032744163	CLEAN HARBORS OK AG COLLECTION	103 ROSS RD		WEBBERS FALLS	OK	FINDS
74470	1020572144		HEDIGER JOHN	11/2 MI S CY ON I-40 RT 2	**	WEBBERS FALLS	OK	EDR Historical Auto Stations
74470	1020518674		STEPHENS OIL INC	E SIDE HWY 100 EXIT 1-40	**	WEBBERS FALLS	OK	EDR Historical Auto Stations
74470	1024702527	110070490922	ODOT/JK INDUSTRIES INC NBI #17013 BR	I-40 UNDER COUNTY ROAD N4435	**	WEBBERS FALLS	OK	FINDS
74470	1024893090	OKR000035410	ODOT/JK INDUSTRIES INC NBI #17013 BR	I-40 UNDER COUNTY ROAD N4435	**	WEBBERS FALLS	OK	RCRAInfo-LQG

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 26

Source: EPA
Telephone: N/A
Last EDR Contact: 06/06/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 26

Source: EPA
Telephone: N/A
Last EDR Contact: 06/06/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 26

Source: EPA
Telephone: N/A
Last EDR Contact: 06/06/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 04/03/2019
Date Data Arrived at EDR: 04/05/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 04/05/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 35

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 06/06/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 35

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 06/06/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: 214-665-6444
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: 214-665-6444
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: 214-665-6444
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: 214-665-6444
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 02/22/2019
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 41

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 05/10/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 01/31/2019
Date Data Arrived at EDR: 02/04/2019
Date Made Active in Reports: 03/08/2019
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 05/29/2019
Next Scheduled EDR Contact: 09/09/2019
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 01/31/2019
Date Data Arrived at EDR: 02/04/2019
Date Made Active in Reports: 03/08/2019
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 05/29/2019
Next Scheduled EDR Contact: 09/09/2019
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/26/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 36

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

SHWS: Voluntary Cleanup & Superfund Site Status Report

Land restoration projects carried out in several DEQ programs.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 05/28/2010
Date Made Active in Reports: 07/13/2010
Number of Days to Update: 46

Source: Department of Environmental Quality
Telephone: 405-702-5100
Last EDR Contact: 05/17/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: Varies

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Permitted Solid Waste Disposal & Processing Facilities

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 01/29/2019
Date Data Arrived at EDR: 05/01/2019
Date Made Active in Reports: 06/26/2019
Number of Days to Update: 56

Source: Department of Environmental Quality
Telephone: 405-702-5184
Last EDR Contact: 05/01/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Annually

State and tribal leaking storage tank lists

LAST: Leaking Aboveground Storage Tanks List

Leaking aboveground storage tank site locations.

Date of Government Version: 05/30/2019
Date Data Arrived at EDR: 06/13/2019
Date Made Active in Reports: 06/17/2019
Number of Days to Update: 4

Source: Oklahoma Corporation Commission
Telephone: 405-522-4640
Last EDR Contact: 06/13/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Varies

LUST: Leaking Underground Storage Tank List

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 05/30/2019
Date Data Arrived at EDR: 06/13/2019
Date Made Active in Reports: 06/17/2019
Number of Days to Update: 4

Source: Oklahoma Corporation Commission
Telephone: 405-521-3107
Last EDR Contact: 06/13/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 10/12/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55
Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 10/17/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55
Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 10/10/2018
Date Data Arrived at EDR: 03/08/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 54
Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/16/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55
Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 02/19/2019
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 11/01/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55
Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 09/24/2018
Date Data Arrived at EDR: 03/12/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 50
Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/13/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 05/15/2017
Date Data Arrived at EDR: 05/30/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 136

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 04/25/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Varies

UST: Underground Storage Tank Listing
Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 12/07/2018
Date Data Arrived at EDR: 12/26/2018
Date Made Active in Reports: 01/07/2019
Number of Days to Update: 12

Source: Oklahoma Corporation Commission
Telephone: 405-521-3107
Last EDR Contact: 06/13/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Varies

AST: Aboveground Storage Tanks
Registered Aboveground Storage Tanks.

Date of Government Version: 12/07/2018
Date Data Arrived at EDR: 12/26/2018
Date Made Active in Reports: 01/07/2019
Number of Days to Update: 12

Source: Oklahoma Corporation Commission
Telephone: 405-521-3107
Last EDR Contact: 06/13/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 11/07/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 10/16/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 11/01/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 10/12/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 09/24/2018
Date Data Arrived at EDR: 03/12/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 50

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/03/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 10/10/2018
Date Data Arrived at EDR: 03/08/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 54

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 10/17/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

State and tribal institutional control / engineering control registries

INST CONTROL: Institutional Control Sites
Sites with institutional controls in place.

Date of Government Version: 03/01/2018
Date Data Arrived at EDR: 05/17/2018
Date Made Active in Reports: 07/02/2018
Number of Days to Update: 46

Source: Department of Environmental Quality
Telephone: 405-702-5100
Last EDR Contact: 06/13/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: Quarterly

State and tribal voluntary cleanup sites

VCP: Voluntary Cleanup Site Inventory
Investigations and cleanups by groups or individuals participating in the Voluntary Cleanup Program (VCP).

Date of Government Version: 01/25/2019
Date Data Arrived at EDR: 02/13/2019
Date Made Active in Reports: 06/13/2019
Number of Days to Update: 120

Source: Department of Environmental Quality
Telephone: 405-702-5100
Last EDR Contact: 06/13/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: Quarterly

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 06/20/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Brownfield Sites
Brownfields are defined by Oklahoma law as abandoned, idled or under used industrial or commercial facilities or other real property at which expansion or redevelopment of the real property is complicated by environmental contamination caused by regulated substances. This program provides a means for private parties and government entities to voluntarily investigate and if warranted, clean up properties that may be contaminated with hazardous wastes. The formal Brownfields Program provides specific state liability relief and protects the property from federal Superfund actions.

Date of Government Version: 09/07/2012
Date Data Arrived at EDR: 09/07/2012
Date Made Active in Reports: 10/10/2012
Number of Days to Update: 33

Source: Department of Environmental Quality
Telephone: 405-702-5100
Last EDR Contact: 05/13/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: No Update Planned

BROWNFIELDS 2: Brownfields Public Record Listing
The Brownfields program provides a means for private parties and government entities to voluntarily investigate and if warranted, clean up properties that may be contaminated with hazardous wastes. The formal Brownfields Program provides specific state liability relief and protects the property from federal Superfund actions.

Date of Government Version: 02/14/2019
Date Data Arrived at EDR: 05/16/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 13

Source: Department of Environmental Quality
Telephone: 405-702-5100
Last EDR Contact: 05/13/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 12/17/2018
Date Data Arrived at EDR: 12/18/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 24

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 06/04/2019
Next Scheduled EDR Contact: 09/30/2019
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: Recycling Facilities

A listing of recycling facility locations.

Date of Government Version: 12/21/2018
Date Data Arrived at EDR: 01/17/2019
Date Made Active in Reports: 03/06/2019
Number of Days to Update: 48

Source: Department of Environmental Quality
Telephone: 405-702-5100
Last EDR Contact: 04/19/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 04/22/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 04/23/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 02/24/2019
Date Data Arrived at EDR: 02/26/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 50

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/24/2019
Next Scheduled EDR Contact: 09/09/2019
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 02/24/2019
Date Data Arrived at EDR: 02/26/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 50

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/24/2019
Next Scheduled EDR Contact: 09/09/2019
Data Release Frequency: Quarterly

Local Lists of Registered Storage Tanks

HIST UST: Underground Storage Tank List, List II Version

This underground storage tank listing includes tank information through March 2003. This listing is no longer updated by the Oklahoma Corporation Commission.

Date of Government Version: 03/21/2003
Date Data Arrived at EDR: 04/28/2003
Date Made Active in Reports: 05/27/2003
Number of Days to Update: 29

Source: Oklahoma Corporation Commission
Telephone: 405-521-3107
Last EDR Contact: 01/19/2009
Next Scheduled EDR Contact: 04/19/2009
Data Release Frequency: No Update Planned

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 35

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 06/06/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System
Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/26/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 49

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

OK COMPLAINT: Oklahoma Complaint System Database
Environmental complaints reported to the Oklahoma Corporation Commission.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 06/11/2019
Date Made Active in Reports: 06/17/2019
Number of Days to Update: 6

Source: Oklahoma Conservation Commission
Telephone: 405-521-4828
Last EDR Contact: 06/10/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: Annually

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated
RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: 214-665-6444
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites
The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 03/07/2019
Date Data Arrived at EDR: 04/03/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 50

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 05/21/2019
Next Scheduled EDR Contact: 09/02/2019
Data Release Frequency: Varies

DOD: Department of Defense Sites
This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 04/12/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 04/12/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 05/13/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/26/2019
Date Made Active in Reports: 05/07/2019
Number of Days to Update: 42

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 05/06/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 05/10/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/21/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 198

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 06/18/2019
Next Scheduled EDR Contact: 09/30/2019
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 01/10/2018
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 2

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 05/24/2019
Next Scheduled EDR Contact: 09/02/2019
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 04/24/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 35

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 06/06/2019
Next Scheduled EDR Contact: 09/16/2019
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 04/25/2019
Date Data Arrived at EDR: 05/02/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 04/22/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 06/06/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 03/20/2019
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 34

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 04/10/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 04/08/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016
Date Data Arrived at EDR: 09/08/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 43
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 04/22/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 06/07/2019
Next Scheduled EDR Contact: 09/16/2019
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 06/07/2019
Next Scheduled EDR Contact: 09/16/2019
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 05/24/2017
Date Data Arrived at EDR: 11/30/2017
Date Made Active in Reports: 12/15/2017
Number of Days to Update: 15
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 04/02/2019
Date Data Arrived at EDR: 04/02/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 42

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 04/02/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 12/03/2018
Date Data Arrived at EDR: 01/29/2019
Date Made Active in Reports: 03/21/2019
Number of Days to Update: 51

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 04/30/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 03/31/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 30

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 04/05/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 04/11/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 05/02/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 06/23/2017
Date Data Arrived at EDR: 10/11/2017
Date Made Active in Reports: 11/03/2017
Number of Days to Update: 23

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 05/24/2019
Next Scheduled EDR Contact: 09/02/2019
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 26

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 06/06/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 11/27/2018
Date Data Arrived at EDR: 02/27/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 33

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 05/29/2019
Next Scheduled EDR Contact: 09/09/2019
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 05/31/2019
Next Scheduled EDR Contact: 09/09/2019
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 05/31/2019
Next Scheduled EDR Contact: 09/09/2019
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 03/27/2019
Date Data Arrived at EDR: 03/28/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 34

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 06/19/2019
Next Scheduled EDR Contact: 09/23/2019
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 02/15/2019
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 03/15/2019
Number of Days to Update: 10

Source: EPA
Telephone: (214) 665-2200
Last EDR Contact: 06/05/2019
Next Scheduled EDR Contact: 09/16/2019
Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 07/26/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 71

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 05/24/2019
Next Scheduled EDR Contact: 09/09/2019
Data Release Frequency: Varies

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 01/17/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 74

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 04/15/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 04/07/2019
Date Data Arrived at EDR: 04/09/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 04/09/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 02/19/2019
Date Data Arrived at EDR: 02/21/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 39

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 05/21/2019
Next Scheduled EDR Contact: 09/02/2019
Data Release Frequency: Quarterly

AIRS: Permitted AIRS Facility Listing

A listing of permitted AIRS facility locations.

Date of Government Version: 05/14/2019
Date Data Arrived at EDR: 05/15/2019
Date Made Active in Reports: 06/18/2019
Number of Days to Update: 34

Source: Department of Environmental Quality
Telephone: 405-702-4100
Last EDR Contact: 06/21/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

DRYCLEANERS: Drycleaner Facilities
A listing of drycleaner facility locations.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/26/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 64

Source: Department of Environmental Quality
Telephone: 405-702-9100
Last EDR Contact: 06/21/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

Financial Assurance 1: Financial Assurance Information Listing
Financial Assurance information.

Date of Government Version: 07/25/2014
Date Data Arrived at EDR: 11/06/2014
Date Made Active in Reports: 01/13/2015
Number of Days to Update: 68

Source: Department of Environmental Quality
Telephone: 405-702-5105
Last EDR Contact: 05/10/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: No Update Planned

Financial Assurance 2: Financial Assurance Information Listing
Financial Assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 12/10/2013
Date Data Arrived at EDR: 12/12/2013
Date Made Active in Reports: 01/24/2014
Number of Days to Update: 43

Source: Department of Environmental Quality
Telephone: 405-702-5100
Last EDR Contact: 05/10/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: No Update Planned

TIER 2: Tier 2 Data Listing
A listing of facilities which store or manufacture hazardous materials and submit a chemical inventory report.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 09/28/2018
Date Made Active in Reports: 10/26/2018
Number of Days to Update: 28

Source: Department of Environmental Quality
Telephone: 405-702-1000
Last EDR Contact: 06/10/2019
Next Scheduled EDR Contact: 09/23/2019
Data Release Frequency: Annually

UIC: Underground Injection Wells Database Listing
Class I injection wells. CLASS I wells are used to inject liquid hazardous and non-hazardous wastes beneath the lower most Underground Sources of Drinking Water (USDW).

Date of Government Version: 03/18/2019
Date Data Arrived at EDR: 04/17/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 42

Source: Department of Environmental Quality
Telephone: 405-702-5188
Last EDR Contact: 04/17/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Oklahoma.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/03/2014
Number of Days to Update: 186

Source: Department of Environmental Quality
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Oklahoma.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/20/2014
Number of Days to Update: 203

Source: Department of Environmental Quality
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Oklahoma Corporation Commission in Oklahoma.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/27/2013
Number of Days to Update: 179

Source: Oklahoma Corporation Commission
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 02/11/2019
Date Data Arrived at EDR: 02/12/2019
Date Made Active in Reports: 03/04/2019
Number of Days to Update: 20

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 05/14/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: No Update Planned

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 05/01/2019
Date Made Active in Reports: 06/21/2019
Number of Days to Update: 51

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 05/01/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Quarterly

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/15/2018
Date Made Active in Reports: 07/09/2018
Number of Days to Update: 24

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 06/10/2019
Next Scheduled EDR Contact: 09/23/2019
Data Release Frequency: Annually

Oil/Gas Pipelines

Source: PennWell Corporation

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data

Source: PennWell Corporation

This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Day Care Centers
Source: Department of Human Services
Telephone: 405-521-3561

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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EXHIBIT G

OCC Records



Enercon Services, Inc.
1601 NW Expressway, Ste. 1000
Oklahoma City, OK 73118
www.enercon.com
405.722.7693 405.722.7694 (fax)

Prepared for: ODOT
Project: CP&Y~00003

Oklahoma Corporation Commission (OCC) Corridor Well Map

SH-100 ARKANSAS RIVER BRIDGE

Muskogee and Sequoyah Counties, Oklahoma

EXHIBIT H

Land Use Evaluation Forms

Exhibit H - Corridor Land Use Evaluation
Field Checklist
Enercon Services, Inc.

ODOT Project No.: CP&Y~00003
County: Muskogee & Seminole
Nearest City: Webbers falls

Enercon ID: E006276
Site Name: SH-100 corridor
Site Address/Legals: Arkansas River bridge

LAND USE CHARACTERISTICS:

X	Vacant Land	X	Industrial (describe)	Consolidated Grain & Barge
X	Agricultural	X	Commercial (describe)	Hit & Run Groceries (Gas)
X	Wooded	X	Government	Webbersfalls Police Department
	Cleared Lot	X	Local/Municipal (describe)	Webbers falls City Park
X	Residential		State/Federal (describe)	
X	Single Family		Utility (describe)	
	Multi-Unit	X	Other (describe)	McClellan-Kerr Arkansas River Navigation System, Gore Cemetary, Church

EVIDENCE OF OIL OR HAZARDOUS MATERIALS:

USTs		Fill cap(s) (indicate #)	X	Fuel Dispensers (indicate #)
		Vent pipe(s) (indicate #)	X	Product Types (Gasoline/diesel/other:)
ASTs		Pedestal (#, size, contents below)		Container Storage (interior/exterior - covered/uncovered)
		At grade (#, size, contents below)		(#, type, size, contents below)
		2nd Containment? (Y/N)	Other:	

UTILITIES:

	Water (public - cap/meter/valve box)(private - wellhead/wellhouse) other:			
X	Sanitary waste (public - cap/manhole)(private - septic tank/vent/lagoon) other:			
X	Natural gas (public - cap/meter/valve box)(private - propane tank) other:			
X	Electric (overhead/below grade)			
III	Transformers (pole/pad)		backup generator	b/u fuel tank (describe)

EVIDENCE OF ENVIRONMENTAL INVESTIGATIONS/RELEASES:

	Monitoring wells (indicate #, locations)
	Remedial system (trailer/shed/extraction wells/public notice) other:
	System active? (Y/N)
	Other overt evidence of a release (describe):

FIELD INTERVIEW:

NOTE: IF COOPERATIVE, CONTACT MAY ASSIST IN COMPLETION ABOVE CHECKLIST (INTERVIEWER'S DISCRETION)

Contact Name: N/A
Title/Organization:
Phone Number:
Comments/Additional Details: Arkansas River level - VERY high. Still in flood stage. FEMA present & conducting surveys, evacuations, demolition, & repair on the adjoining properties. Park Rd was submerged. Portions of N. River Rd blocked by FEMA. NW adjoining park access road blocked. Sandplant Rd blocked (all due to River flood waters).

EXHIBIT I

Personnel Resumes

ENERCON

Lauran Rose Drummond

Experienced environmental geoscientist with academic and consulting expertise gained while working with a diverse clientele including the Choctaw Nation, Enable Midstream Partners, the Oklahoma Department of Transportation, MidFirst Bank, OneOK, and many others.

Experience Summary

- Experience performing Due Diligence investigations, including Phase I and II
- Environmental Site Assessments, for sites located throughout the Midwest U.S.
- Experience performing groundwater sampling, wastewater sampling, soil sampling, and air sampling.
- Experience preparing environmental compliance Tier II submissions.
- NEPA wetland delinations
- Experience performing asbestos inspections and sampling for projects ranging from small scale duration to large complete renovation and demolition.
- Experience performing general field support.

Education and Professional Recognition

B.S. Geoscience, University of Tulsa, Tulsa, Oklahoma, 2017.

Professional Certification and Training
40-Hour HAZWOPER Certified, 808718
Certified Asbestos Inspector, State of Oklahoma, 402205

Motor Vehicle Accident Prevention Course
Ladder Safety Training

Professional Organizations
American Association of Petroleum Geologists (AAPG)
American Institute of Professional Geologists (AIPG)
Tulsa Geological Society (TGS)
Women in GIS

Scholarships and Honors
Oklahoma Geological Foundation Frederik M. Black Grant
Peter and Grace McMahon Scholarship for Engineering
John Woncik Memorial Scholarship for Geosciences

ENERCON

Jefferson E. Laughlin, P.G.

Experience Summary

- Over 30 years of professional experience as a Senior Project Manager, Geologist, and Hydrogeologist.
- Extensive experience with Brownfield site characterizations, risk-based corrective action (RBCA) studies, petroleum storage tank investigations, oilfield industry environmental services, soil and groundwater quality sampling and monitoring, free product characterization and removal, remedial investigations and feasibility studies, remediation construction management.
- Broad experience with Phase I and Phase II Environmental Site Assessments, pre-acquisition due diligence reviews for real property transfers and for acquisitions of oil and gas assets, vapor encroachment, vapor intrusion evaluations, risk-based assessment, and solid waste management.
- Extensive experience and familiarity with State and Federal environmental laws and regulations, including RCRA, CERCLA, SARA, SDWA, CWA, NEPA, and CAA.

Experience Description

Mr. Laughlin is a Senior Project Manager in the Oklahoma City Environmental Services Group. Examples of his project experience include:

- Senior Project Manager for a Voluntary Cleanup Program (VCP) site involving multiple responsible parties including two municipalities and two former aerospace technology companies. Investigation included characterization of release of trichloroethene (TCE) from facility Site. Identified upgradient source of perchloroethene (PERC) that commingled with the plume further downgradient. These commingled plumes migrated at very low concentrations into a municipal well-head protection area of a neighboring municipality well field. Characterized soil, groundwater, soil vapor, and indoor air quality according to Oklahoma Department of Environmental Quality (ODEQ) VCP requirements. Coordinated work of technical teams to conduct 1) groundwater fate and transport studies using numerical groundwater models, and 2) compound specific isotopic analyses (CSIA, a forensic analysis) to potentially differentiate the commingled plumes. Conducted vapor intrusion risk assessments for residential and industrial exposure scenarios. Conducted sediment and shallow soil investigations of polynuclear aromatic hydrocarbons (PAHs) and hexavalent chromium and developed remediation strategy to comply with cleanup requirements for shallow site soils with impacted material on properties zoned for both industrial and residential use.
- Represented a commercial and residential development company that owned a 360-acre tract of land adjacent to a VCP site with a contaminant plume migrating toward their site. The VCP project was stalled in completing delineation of the contaminant onto their property, thus delaying land development. At the discretion of the developers, Mr. Laughlin negotiated with the ODEQ to allow ENERCON to submit a work plan to implement and expedite the investigation. ENERCON delineated the plume and recommendations were made to place a limited deed restriction on 15 acres, thus allowing quick and unrestricted development of the remaining 345-acres.
- Managed the preparation of the Revised Feasibility Study Report in cooperation with the ODEQ and the USEPA (Region 6) for a Superfund Site in Cyril, Oklahoma.

- Performed hydrogeological characterization of VOC-contaminated Brownfield property affecting the Equus Beds Aquifer in Kansas. Conducted direct-push and hollow-stem auger drilling with continuous core sampling, provided lithological descriptions, aquifer testing and low flow groundwater sampling. Completed remedial investigation report for review by regulatory authorities (KDHE).
- Managed drilling and sampling program for hydrogeological investigation of Tampa, Florida site. Used mud-rotary drilling with split-spoon sampling methods to obtain undisturbed soil/rock samples for lithological description and sample collection.
- Conducted aquifer tests and pump tests within the El Reno Minor Groundwater Basin to characterize the groundwater aquifer and the hydrogeological setting for a proposed development near Mustang, Oklahoma. Installed production and monitoring wells using mud-rotary drilling techniques and conducted 24-hour multi-well aquifer tests. Evaluated aquifer test data using USGS software, evaluated resistivity and gamma ray logs for groundwater quality and correlation purposes, and managed groundwater modeling for multi-year groundwater pumping scenarios.
- Senior Project Manager over environmental issues for several oil and gas companies involved in exploration, production, gathering, transportation, and refining.
- Performed Oklahoma Risk-Based Corrective Action (ORBCA) assessments and obtained closure on numerous leaking underground storage tank (LUST) sites. Initial site assessment, site classification, and initial response actions were followed by toxicity and exposure assessments to determine Tier 1 Risk-Based Screening Levels (RBSLs) and, as needed, Tier 2 Site-Specific Target Levels (SSTLs).
- Conducted Risk-Based Corrective Action for numerous former Gas Plant / Active Compressor Station sites in Northeast Oklahoma. Subsurface investigations, hazard identification, exposure assessment and risk-based calculations were conducted according to Oklahoma guidelines for oil-field sites.
- Senior Project Manager for environmental investigation and remediation projects for Oklahoma Department of Transportation (ODOT) along several highway reconstruction corridors. An example includes investigation and remediation along the Boulevard Corridor through downtown Oklahoma City. The project corridor transected a former historical oil field and oil refinery facility. Project deliverables included the preliminary site investigation (PSI), contaminated material management plan (CMMP), remedial action plan (RAP), and the remedial action report (RAR).
- Managed remediation of several crude oil release cleanup projects for pipeline companies. An example of these services included the excavation and treatment of approximately 35,000 cubic yards of hydrocarbon impacted soil, completed remediation using biopile treatment, and implemented land farming techniques to reduce hydrocarbon concentrations to Oklahoma Corporation Commission (OCC) approved levels. Risk-based corrective action was used to assess potential impacts to groundwater.
- Subject Matter Expert (Hydrogeologist) for the site investigation for the Construction and Operating License Application (COLA) for a nuclear power plant for a site in South Carolina. Conducted the 10 CFR Part 50 Appendix B safety-related accidental release investigations. Supervised drilling and installation of Piedmont monitoring and observation wells, conducted groundwater hydrogeological investigation, directed bathymetric studies and functioned as lead author of safety and environmental report sections. Interfaced with Nuclear Regulatory Commission (NRC) personnel.
- Subject Matter Expert (Hydrogeologist) for the Early Site Permit (ESP) Application for a nuclear power plant for a site in Utah. Implemented a large scale hydrological investigation

and pre-construction monitoring program for surface water and groundwater. Supervised drilling and installation of Mancos Shale monitoring and observation wells, conducted hydrogeological investigation, directed bathymetric studies within the Green River and functioned as lead author of safety and environmental report sections related to the COL application.

- Managed numerous initial site assessments (ISAs) and subsurface site investigations (SSIs) for the Oklahoma Department of Transportation (ODOT) to evaluate environmental risks related to highway reconstruction projects in Oklahoma.
- Supported the NRC license renewal of source material permit application for a facility in Southern Illinois. Completed the geological and groundwater sections of the Environmental Report.
- Conducted NORM scale and NORM-contaminated materials characterization, managed low-level radioactive materials shipping and transportation for disposal.

Prior to joining ENERCON, examples of Mr. Laughlin's experience included:

- Provided technical support related to litigation, including work as an expert witness at technical hearing at the Oklahoma Corporation Commission (OCC).
- Assessed and delineated commingled plumes from adjoining gas station sites, evaluated, and characterized site hydrogeology, and represented our client in meetings with responsible party (RP). Presented technical data as expert witness before the regulatory authority, resulting in a cooperative cleanup venture.
- Managed pond closure activities at electrical generating station in accordance with state regulatory authority regulations. Managed the intensive soil and groundwater sampling, and long-term groundwater monitoring programs. Interfaced with geotechnical team for proper testing of fill materials and compaction.
- Performed fast-track pre-acquisition (Phase I) environmental site assessments of numerous oil and gas wells and pipeline assets in Oklahoma, Texas, Kansas, Missouri and Arkansas.
- Performed fast-track consultations with appropriate local, state and federal agencies. Obtained support documentation for Categorical Exclusion (CE) and Findings of No Significant Impact (FONSI) for construction projects and facility expansion projects.
- Conducted Environmental Assessments for federally funded construction projects for pipeline, transportation and corrections agencies. Evaluated potential environmental consequences of proposed actions and alternatives.
- Project Manager and Senior Geologist over the development of 76 county maps for the State of Oklahoma identifying the base of treatable water. The core database, developed from review of over 100,000 geophysical well logs, is currently utilized by the state to determine the surface casing requirements for oil and gas wells, and they assist in determining the environmental sensitivity of proposed production well locations.
- Investigated and characterized sites for suitability of commercial and noncommercial disposal of petroleum industry drilling fluid waste. Coordinated meetings with the regulatory authority, provided expert testimony at technical hearings, and obtained the required permits for land application of oilfield wastes.

Education and Training

M.S., Geology, University of Oklahoma
B.A., Chemistry, Southern Methodist University
40-Hour Hazardous Waste Operations & Emergency Response
Environmental Sampling and Analysis

Risk-Based Corrective Action
Sanitary Landfill Design
Understanding and Applying Risk Assessment Guidance for Superfund (RAGS)
Vapor Intrusion Pathway: A Practical Guideline

Professional Certifications, Memberships and Affiliations

Registered Professional Geologist, State of South Carolina (#2487)
Registered Geologist, State of Missouri (#0713)
Oklahoma Corporation Commission, Licensed Remediation Consultant
American Institute of Professional Geologists (AIPG) Oklahoma Section, Past President and Former Board Member

PUBLIC INVOLVEMENT

Virtual Public Open House Summary

Oklahoma Department of Transportation

SH-100 Bridge over the Arkansas River at the Muskogee/Sequoyah County Line

Muskogee County, JP 32100(04)

Prepared by:

2000 N. Classen Blvd., Suite 1410
Oklahoma City, OK 73106

May 2021

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Executive Summary

This document summarizes the virtual public open house that was conducted for the SH-100/US-64 bridge over the Arkansas River at the Muskogee/Sequoyah County Line. The project begins on the west bank of the Arkansas River east of the Stand Waite Boulevard intersection in Webber Falls and extends approximately 0.5 mile east to terminate on the east bank of the river just west of Sandplant Road in Gore. The purpose of the virtual open house was to inform the public about the proposed highway bridge improvement project, describe the potential environmental impacts, obtain public input, and outline the next steps and proposed project schedule.

Due to concerns about the spread of COVID-19, ODOT held a virtual public open house as opposed to an in-person open house. The public open house was held on-line between February 12 and February 26, 2021. Ten members of the public signed in on the website, however, signing-in was not required. According to the website analytics, 318 unique visitors viewed the website over the 15-day period. After the homepage, the project presentation page was the most frequently viewed, followed by the interactive project map, then the frequently asked questions, and project schematic pages. In total, twenty (20) written comments/questions were received during the virtual public open house, including one (1) agency response, nine (9) comments submitted via the website comment feature, eight (8) written comments received by mail, and two (2) emailed comments that were duplicates of mailed comments.

Agency comments included the following:

- The Oklahoma Department of Environmental Quality (ODEQ) determined that no adverse environmental impacts under ODEQ jurisdiction are anticipated.

Seventeen (17) people submitted a total of nineteen comments on the project; two people submitted the same comment on the website and by sending an email. The majority of the comments were in support of the project most commonly citing safety as an improvement; however, the majority of concerns were about how access and travel patterns would be impacted during the construction phase. The majority were concerned about potential community impacts during the construction, especially for residents of Webbers Falls. Webber Falls does not have many of the services that are found in Gore such as grocery stores, healthcare services, or pharmacies. Many felt that the construction phase would be too long. There were two comments (three counting the comment that was submitted twice) that stated that farmers have operations on both sides of the river and the detour would impact the transport of farming equipment from one side to another, particularly if there were lane closures along the detour route. Two comments stated that there was no need for the project and one asked if building the new bridge on the old bridge road was considered. Comments are tabulated in **Table E1.** Note that the number of comments in the table is greater than 17 because several people submitted comments with more than one concern/issue.

Table E1: Comments

Comments	# of Comments
Approve of Project	8
Safety Improvements	3
Easier to transport farm equipment	3 (1 duplicate comment)
General Support	1
Support with concerns about schedule	2
Construction schedule too long	5
Community impacts	4
Access to necessities such as grocery stores and healthcare/economic hardship	2
Public safety/emergency response	1
Tourism/economic development	2
No need for the project	2
Waste of money	1
Should have shoulders but no extra lanes	1
Resurface and add lane but get rid of shoulders	1
Safety will be improved	4
Pedestrian facilities	3
Farming equipment transport	3 (1 duplicate comment)
Utility placement	1
Loan assistance for utility relocation	1
Navigational issues/pier placements	1

Responses to Comments

Approve of Project:
Thank you for your comments.

Construction schedule is too long:
The bridge construction will be accelerated to minimize road closure times. This includes a method that sequences construction of portions of the new bridge foundations before removing the existing bridge. The side slopes will be preserved to avoid park areas and increase the speed of construction. Existing utilities will also be moved before construction.

Concerns about access to necessities such as grocery stores and healthcare/economic hardship:
Thank you for your input on potential impacts to the communities of Gore and Webbers Falls as result of the proposed bridge closure. ODOT will conduct a Community Impacts Assessment to evaluate and assess potential impacts to the communities as a result of the project and the proposed bridge closure.

Concerns about public safety and emergency response due to detour:
Methods will be put into place to accelerate the bridge construction and reduce the closure times as much as possible. Local emergency service providers have been notified of the proposed bridge closure and detour route in order to plan for the closure during construction.

Concerns about impacts to tourism and economic development revenue for local businesses:
Thank you for your input on potential impacts to the communities of Gore and Webbers Falls as result of the proposed bridge closure. ODOT will conduct a Community Impacts Assessment to evaluate and assess potential impacts to the communities as a result of the project and the proposed bridge closure.

Project is not needed:
The project will provide a safer crossing over the Arkansas River. The existing bridge is showing signs of structural deterioration and substandard functional aspects of improved safety. In addition, the bridge, which was built in 1969, has reached the end of its intended design life. It requires frequent inspections and maintenance. A new bridge will allow additional traffic to cross more safely.

Safety will be improved:
Improving safety is one of the primary purposes of the proposed bridge. The existing structure is reaching the end of its design life and there are deteriorating conditions.

Impacts to pedestrians who use sidewalk on bridge and suggestion that bike/ped facilities be included:
As proposed, there are no pedestrian facilities included in the design. The existing roadway appears to have a sidewalk, but it functionally is considered the shoulder. It is being replaced by a larger shoulder than is there currently. There is also no adjoining sidewalk on either side of the bridge.

Concerns about difficulties transporting farm equipment from one side of the river to the other:
No projects on I-40 along the proposed detour are currently programmed to occur at the same time as the SH-100 bridge replacement over the Arkansas. ODOT recognizes the need to keep the detour on I-40 open to two lanes during the SH-100 bridge replacement in order to allow for the movement of large farm equipment across the Arkansas River.

Other Questions/Comments:

- Different alignment / location for new bridge
    - *In order to utilize existing highway infrastructure and minimize new right of way or easement to the fullest extent, it was decided to place the new bridge on the existing alignment.*
- Utility Placement
    - *Utilities will be relocated away from the bridge. The relocation will occur prior to bridge construction.*
- Loan assistance for utility relocations
    - *ODOT does not offer financial assistance in the form of loans for utility relocation costs.*
- Navigational issues/pier placements
    - *The number of spans will be reduced from 15 to 7 using fewer piers in the river waters. The new piers will be placed 38' west of the existing pier on the west side of the channel and 38' east of the existing pier on the east side of the channel. The available navigational width will continue to be controlled by the existing pier protection, which will remain unchanged. This will provide increased safety for boaters.*

Introduction

This document summarizes the virtual public open house conducted for the SH-100 Bridge over the Arkansas River at the Muskogee/Sequoyah County Line. The purpose of the virtual open house was to present the proposed improvements, describe the potential environmental impacts, obtain public input, and outline the next steps and the proposed project schedule.

Virtual Public Open House

Virtual Open House Notification

Notice of the virtual public open house was sent by regular USPS mail to elected officials (federal, state, and local), affected property owners, and utility owners in the study area. The mailing included a project pamphlet that included a letter from ODOT and information on how to access the virtual public meeting. The pamphlet also included a brief description of the project, background information, a typical section rendering, the purpose and need, and the anticipated construction schedule with detour instructions. A comment form and self-addressed stamped envelope was also included in the mailing. The pamphlets were mailed on February 9, 2021. The pamphlets were also delivered using the USPS Every Door Direct Mail service to 1,609 addresses covering the areas surrounding the towns of Webber Falls in Muskogee County and Gore in Sequoyah County. A copy of the pamphlet, mailing lists, and direct mail information are included in **Appendix A**.

Meeting Information and Format

The virtual public open house was held on-line between February 12 and February 26, 2021. The website address was www.odot.org/SH100ArkansasRiver. Ten people signed in on the website, however, sign-in was not required. According to the website analytics, 318 unique visitors viewed the website over the 15-day period . After the homepage, the project presentation page was the most frequently viewed, followed by the interactive project map, then the frequently asked questions, and project schematic pages. A copy of the summary analytics and list of the website sign-in are included in **Appendix B**. Prints of the website pages and posted materials are included in **Appendix C**. The website included the following pages navigable from the homepage.

The website included the following pages:

- Homepage with brief overview of the project, the virtual public open house information, a telephone number contact, submission of written comments, and information about American Disability Act (ADA) accommodations.
- Sign-in and Handout – A form for signing in and a PDF copy of the notification pamphlet and map.
- Project Presentation – A slideshow with audio presentation describing the proposed project that was also available for download as a PDF that included a script.
- Interactive Project Map – An online ArcGIS map.
- Project Schematic – An aerial map showing the project limits, existing Right-of-Way and location of the project. The map was also available for download as a PDF.
- Frequently Asked Questions – A list of common questions about his and other ODOT projects.

- Submit a Comment – On-line form to submit a comment as well as a PDF file of the comment form for download.

Agency Solicitation

Agency solicitation letters were mailed on February 10, 2021. These letters provided a short project description and included information about the virtual public open house and requested that recipients provide input by February 26, 2021. Enclosed with the letter was a copy of the project location map. This letter was sent to state and federal resources agencies and Indian Tribes. A copy of the agency solicitation letter and the mailing list is included in **Appendix D.**

Interactive Map

The website included a link to an interactive map that showed the proposed design of the proposed project and the detour route and instructions. The interactive map included the capability to capture comments at specific locations along the proposed project. There were no comments left on the interactive map.

Summary of Comments and Responses

In total, twenty (20) written comments/questions were received during the virtual public open house, including one (1) agency comment, nine (9) comments submitted via the website comment feature, eight (8) written comments received by mail, and two (2) emailed comments that were duplicates mailed comments. There were no comments submitted on the interactive map. Copies of the written comments are included in **Appendix E**.

Agency Comments

The Oklahoma Department of Environmental Quality (ODEQ) determined that no adverse environmental impacts under ODEQ jurisdiction are anticipated. However, ODEQ recommends that prior to beginning construction activity disturbing more than one acre, an NOI must be submitted and authorization obtained under OKR10, construction stormwater. In addition, if water or wastewater utilities need to be relocated as part of the project, a construction permit from ODEQ's Water Quality Division is required. *Response: ODOT will require the contractor to obtain the appropriate permits from ODEQ.*

Public Comments

Seventeen (17) people submitted a total of nineteen comments on the project; two people submitted the same comment on the website and by sending an email. The majority of the comments were in support of the project most commonly citing safety as an improvement; however, the majority of concerns were about how access and travel patterns would be impacted during the construction phase. The majority were concerned about potential community impacts during the construction, especially for residents of Webbers Falls. Webber Falls does not have many of the services that are found in Gore such as grocery stores, healthcare services, or pharmacies. Many felt that the construction phase would be too long. There were two comments (three counting the comment that was submitted twice) that stated that farmers have operations on both sides of the river and the detour would impact the transport of farming equipment from one side to another, particularly if there were lane closures along the detour route. Two comments stated that there was no need for the project and one asked if building the new bridge on the old bridge road was considered. Comments are tabulated in **Table 1.** Note that

the number of comments in the table is greater than 18 because several people submitted comments with more than one concern/issue.

Table 1: Comments

Comments	# of Comments
Approve of Project	8
Safety Improvements	3
Easier to transport farm equipment	3 (1 duplicate comment)
General Support	1
Support with concerns about schedule	2
Construction schedule too long	5
Community impacts	4
Access to necessities such as grocery stores and healthcare/economic hardship	2
Public safety/emergency response	1
Tourism/economic development	2
No need for the project	2
Waste of money	1
Should have shoulders but no extra lanes	1
Resurface and add lane but get rid of shoulders	1
Safety will be improved	4
Pedestrian facilities	3
Farming equipment transport	3 (1 duplicate comment)
Utility placement	1
Loan assistance for utility relocation	1
Navigational issues/pier placements	1

Responses to Comments

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Safety will be improved:
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continue to be controlled by the existing pier protection, which will remain unchanged. This will provide increased safety for boaters.

Appendix A

Pamphlet and Mailing Lists

PROJECT LOCATION



PROJECT INFORMATON SUMMARY

- **Right-of-Way & Utility Location Start:** Fall 2021
- **Construction Start:** FY 2026*
- **Current Annual Average Daily Traffic (AADT) in year 2021:** 4,100 Vehicles Per Day (VPD)
- **Future Estimated AADT by year 2042:** 5,700 VPD

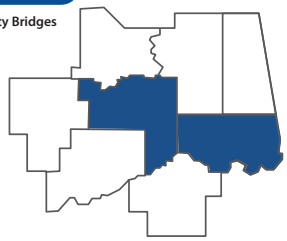
**Construction start date is subject to funding.*

DISTRICT 1 ENGINEER: CHRIS WALLACE, P.E.

*Totals DO NOT include Toll Roads

**Totals DO NOT include County Bridges

*Total Road Miles	*Total Interstate Miles	**Total Bridges
1,110.70	97.31	704



COUNTIES

Adair, Cherokee, Haskell, McIntosh, **Muskogee**, Okmulgee, **Sequoyah**, Wagoner

PLEASE PROVIDE YOUR COMMENTS BY FEB. 26, 2021

For more information about the project:

(405) 325-3269
environment@odot.org

http://www.odot.org/publicmeetings



VIRTUAL
OPEN HOUSE
FEB. 12, 2021 - FEB. 26, 2021

SH-100 Bridge over the Arkansas River
Muskogee/Sequoyah Counties; JP 32100(04)

www.odot.org/SH100ArkansasRiver

VIRTUAL OPEN HOUSE

The Oklahoma Department of Transportation will host a virtual open house to present the proposed improvements to the SH-100 bridge over the Arkansas River at the Muskogee/Sequoyah county line. This open house will present the design for the project and allow the public to submit input. Due to concerns over the spread of COVID-19, this will be a web-based format (no in-person meeting). The information will be available beginning Friday, Feb. 12, 2021, and comments are requested by Friday, Feb. 26, 2021.

Purpose

The purpose of the Virtual Open House is to present information about the proposed improvements to the SH-100 bridge over the Arkansas River and obtain information from the public to further assist in the identification of critical social, economic, and environmental effects that may result from the project.

Join

www.odot.org/SH100ArkansasRiver

OKLAHOMA Transportation

OKLAHOMA Transportation

ENVIRONMENTAL PROGRAMS DIVISION
200 N.E. 21ST STREET
OKLAHOMA CITY, OK 73105-3204

February 9, 2021

Dear Stakeholders, Property Owners and Utility Owners:

RE: SH-100: Bridge over the Arkansas River at the Muskogee/Sequoyah County line, Muskogee County, ODOT Job Piece 32100(04), Project J3-2100(004)PM

The Oklahoma Department of Transportation (ODOT), in cooperation with the Federal Highway Administration (FHWA), is proposing to correct the narrow bridge on SH-100 over the Arkansas River. The existing bridge is considered narrow with 11 ft. wide driving lanes and 3 ft. wide shoulders. The existing bridge is also at-risk of becoming structurally deficient. The purpose of the project is to improve safety by addressing the narrow width and structural deficiencies of the existing bridge.

The improvements would replace the SH-100 bridge with a new bridge on the existing alignment. The new bridge would be 40 ft. wide, consisting of two 12 ft. wide driving lanes with 8 ft. wide shoulders. The bridge would be closed to traffic during construction with an estimated closure duration of 24 months with incentives to reduce the closure time. Highway traffic would be detoured to I-40 and SH-10 during the closure period.

Due to ongoing concerns about COVID-19, ODOT will host a virtual open house from **February 12** to **February 26, 2021**. The purpose of the open house is to present information about the project and obtain input from the public to further assist in the identification of critical social, economic and environmental effects that may result from the project. This pamphlet contains additional information about the virtual public open house. After the virtual public open house, project information may be viewed at www.odot.org/publicmeetings.

If you are leasing this property, please notify your lessee of this virtual public open house.
Should you have any questions or would like additional information regarding this project, please email environment@odot.org , or call 405-325-3269 and leave a detailed message.

Respectfully,

Sivanuja S Sundaram

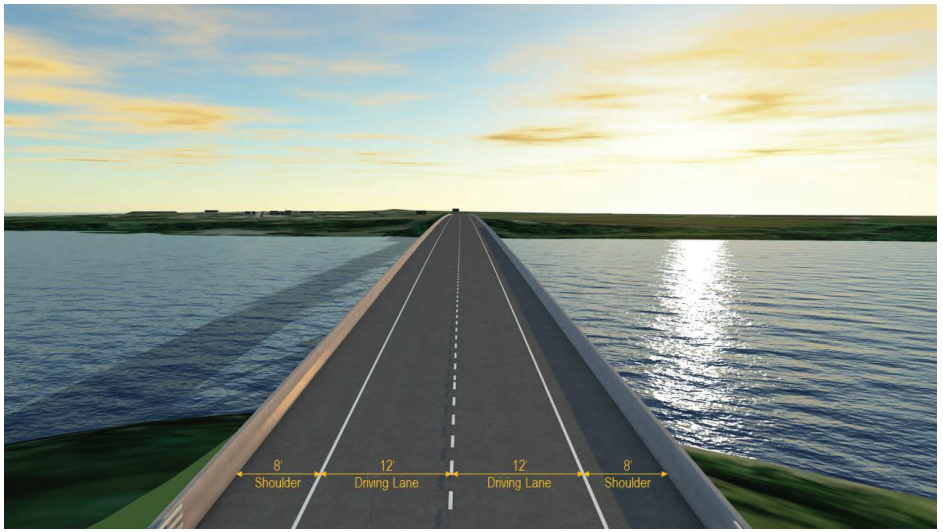
Siv Sundaram, P.E.
Environmental Programs Division Engineer

The Oklahoma Department of Transportation (ODOT) ensures that no person or groups of persons shall, on the grounds of race, color, sex, religion, national origin, age, disability, retaliation or genetic information, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any and all programs, services, or activities administered by ODOT, its recipients, sub-recipients, and contractors. To request an accommodation please contact the ADA Coordinator at 405-521-4140 or the Oklahoma Relay Service at 1-800-722-0353, no later than 72 hours before any scheduled event. If you have any ADA or Title VI questions email ODOT-ada-titlevi@odot.org.

"The mission of the Oklahoma Department of Transportation is to provide a safe, economical, and effective transportation network for the people, commerce, and communities of Oklahoma."

AN EQUAL OPPORTUNITY EMPLOYER

TYPICAL SECTION RENDERING



Project Background

The existing SH-100 bridge over the Arkansas River was built in 1969. The existing bridge is considered narrow with 11 ft. wide driving lanes and 3 ft. wide shoulders. The SH-100 bridge is also considered at-risk of becoming structurally deficient.

Project Description

The proposed improvements include replacing the SH-100 bridge with a new bridge on the existing alignment. The new bridge would be 40 ft. wide, consisting of two 12 ft. wide driving lanes with 8 ft. wide shoulders. The new bridge would be constructed within the existing right-of-way.

The bridge would be closed to traffic during construction with an estimated closure duration of 24 months with incentives to reduce the closure time. Highway traffic would be detoured to I-40 and SH-10 during the bridge closure. The enclosed map shows the proposed detour route.



DETOUR INSTRUCTIONS

From Webbers Falls, along SH-100, continue southwest along SH-100/SH-64, and south along SH-100 to I-40. Travel east along I-40 and take Exit 291 for SH-10. Travel north along SH-10, and then northwest along SH-10/SH-64 until you reach Gore.

From Gore, travel southeast along SH-10/SH-64, and south along SH-10 to I-40. Travel west along I-40 and take Exit 287 for SH-100. Travel north along SH-100, and northeast along SH-100/SH-64 until you reach Webbers Falls.

Proposed Detour Route (11.8 miles)

1 inch = 0.5 miles

Miles

0 0.25 0.5

Basemap: ESRI Streets

SH-100
at Arkansas River

J/P 32100(04)

Muskogee County

Proposed Detour Map

Public Officials

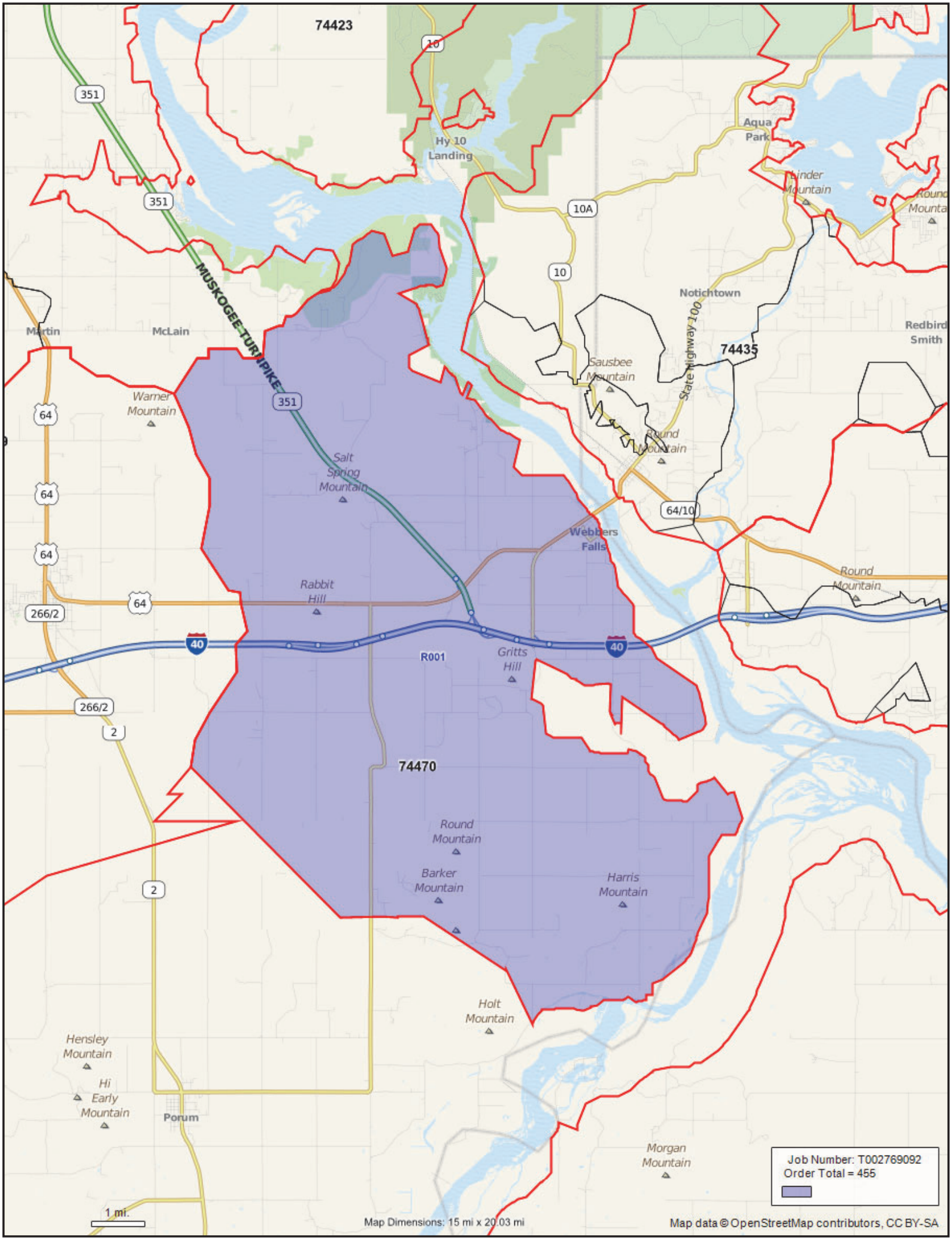
Updated	7/9/2020											
Mr.	V. Gene	McKown	Mr. McKown	At-Large Member	Oklahoma Transportation Commissioner	1320 N. Porter	Norman	Oklahoma	73071		email	Pending ODOT email address, gmckown@ideal-homes.com is his personal email.
Mr.	Bob	Coburn	Commissioner Coburn	District I	Oklahoma Transportation Commissioner	3420 Riverbend Road	Muskogee	Oklahoma	74403		US	Send to the appropriate Commissioner, for the referenced Project.
			Commissioners	Board of County Commissioners	Muskogee County Courthouse	PO Box 2307	Muskogee	Oklahoma	74402		US	This info can be found on the ACCO Directory
			Commissioners	Board of County Commissioners	Sequoyah County Courthouse	117 South Oak, Suite 112	Sallisaw	Oklahoma	74955		US	This info can be found on the ACCO Directory
The Honorable	Markwayne	Mullin	Representative Mullin	U.S. House of Representatives		2421 Rayburn HOB	Washington	D.C.	20515		US	Send to both Local & DC, This info can be found at http://www.ok.gov/ and click on “Find your legislator” link.
The Honorable	Markwayne	Mullin	Representative Mullin	U.S. House of Representatives		811-A N. York St.	Muskogee	Oklahoma	74403		US	Send to both Local & DC, This info can be found at http://www.ok.gov/ and click on “Find your legislator” link.
The Honorable	Dewayne	Pemberton	Senator Pemberton	State Senate		2300 N. Lincoln Blvd., Rm. 429	Oklahoma City	Oklahoma	73105		US	Send to both Local & OKC, This info can be found at http://www.ok.gov/ and click on “Find your legislator” link.
The Honorable	Roger	Thompson	Senator Thompson	State Senate		2300 N. Lincoln Blvd., Rm. 537	Oklahoma City	Oklahoma	73105		US	Send to both Local & OKC, This info can be found at http://www.ok.gov/ and click on “Find your legislator” link.
The Honorable	Chris	Sneed	Representative Sneed	State Representative		2300 N. Lincoln Blvd., Room 300C	Oklahoma City	Oklahoma	73105		US	Send to both Local & OKC, This info can be found at http://www.ok.gov/ and click on “Find your legislator” link.
The Honorable	Randy	Randleman	Representative Randleman	State Representative		2300 N. Lincon Blvd., Room 330	Oklahoma City	Oklahoma	73105			
The Honorable	Jim	Inhofe	Senator Inhofe	U.S. Senate		3817 NW Expressway #780	Oklahoma City	Oklahoma	73112		US	Send to DC Address + OKC Office
The Honorable	Jim	Inhofe	Senator Inhofe	U.S. Senate		205 Russell Senate Office Building	Washington	D.C.	20510-3603			
The Honorable	James	Lankford	Senator Lankford	U.S. Senate		316 Hart Senate Office Building	Washington	D.C.	20510		US	Send to DC Address + local Office
The Honorable	James	Lankford	Senator Lankford	U.S. Senate		1015 N. Broadway Ave. Suite 310	Oklahoma City	Oklahoma	73102		US	
Mr.	Ernie	Moore	Mr. Moore	Executive Director	Eastern Oklahoma Development District	1012 North 38th Street, P.O. 1367	Muskogee	Oklahoma	74402	918.682.7891	US	Counties Served: Adair, Cherokee, McIntosh,Muskogee, Okmulgee, Sequoyah,Wagoner
The Honorable	Sandra	Wright	Mayor Wright		Town of Webbers Falls	PO Box 179	Webbers Falls	Oklahoma	74470			This info can be found in the Directory of City & Town Officials
Ms.	Samantha	Davidson	Ms. Davidson	Office of the Governor		2300 N. Lincoln Blvd., Ste. 212	Oklahoma City	Oklahoma	73105			
Chief	Billy	White	Chief White	Gore Police Department	Town of Gore	PO Box 181	Gore	Oklahoma	74435			
			To Whom it May Concern	Gore Volunteer Fire Department	Town of Gore	PO Box 181	Gore	Oklahoma	74435			
Mr.	Chris	Whelan	Mr. Whelan	Webbers Falls Public Schools		PO Box 300	Webbers Falls	Oklahoma	74470			
Mr.	Lucky	McCrary	Mr. McCrary	Gore Public Schools		1200 N. Highway 10	Gore	Oklahoma	74435			
			To Whom it May Concern	Pafford Medical Services		205 E. Schley St.	Vian	Oklahoma	74962			
			To Whom it May Concern	Muskogee County EMS		200 Callahan St.	Muskogee	Oklahoma	74403			
Chief	Keith	Bell	Chief Bell	Webbers Falls Police Department	Town of Webbers Falls	PO Box 179	Webbers Falls	Oklahoma	74470			
Chief	Shawn	Smith	Chief Smith	Webbers Falls Fire Department	Town of Webbers Falls	PO Box 179	Webbers Falls	Oklahoma	74470			
The Honorable	Bob	Warren	Mayor Warren	Town of Gore		PO Box 181	Gore	Oklahoma	74435			
Dr.	Joni	Crouch	Dr. Crouch	Trustee, Ward 4	Town of Gore	PO Box 181	Gore	Oklahoma	74435			
Mr.	Ryan	Callison	Mr. Callison	Trustee, Ward 3	Town of Gore	PO Box 181	Gore	Oklahoma	74435			
Mr.	Don	Carter	Mr. Carter	Trustee, Ward 2	Town of Gore	PO Box 181	Gore	Oklahoma	74435			
Mr.	Larry	Pack	Mr. Pack	Trustee, Ward 1	Town of Gore	PO Box 181	Gore	Oklahoma	74435			
Mr.	Johnny	Pollard	Mr. Pollard	Vice Mayor	Town of Webbers Falls	PO Box 179	Webbers Falls	Oklahoma	74470			
Ms.	Shiloh	McPeack	Ms. McPeak	Trustee	Town of Webbers Falls	PO Box 179	Webbers Falls	Oklahoma	74470			
Mr.	David	Chase	Mr. Chase	Trustee	Town of Webbers Falls	PO Box 179	Webbers Falls	Oklahoma	74470			
Mr.	Aaron	Gage	Mr. Gage	Trustee	Town of Webbers Falls	PO Box 179	Webbers Falls	Oklahoma	74470			

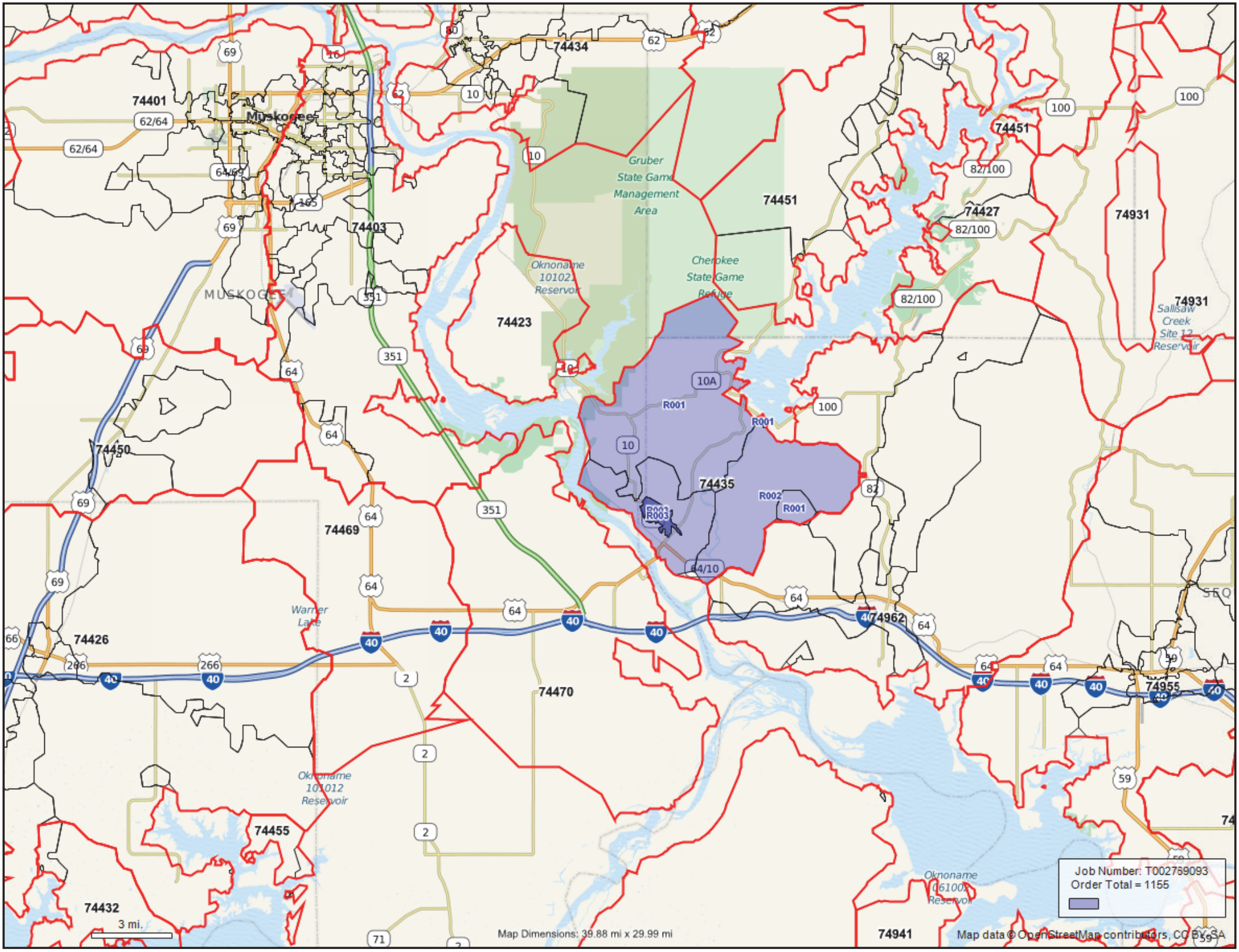
Property Owners

TIMOTHY R & JULIE A	POTEETE	PO BOX 85	STERLING	OK	73567
TRAVIS	CAUDELL	1340 CROSSPOINT ROAD F1	CONWAY	AR	72034
NORMA JEAN	CAWHORN	#2 CAWHORN RD F1	GORE	OK	74435
POLLY PROPERTIES LLC		PO BOX 52808 F1	TULSA	OK	74152
TWO BOYS & A TRACTOR, LLC		PO BOX 90	WEBBERS FALLS	OK	74470

Utility Owners

Mr.	Clint	Rhodes	AT&T	208 S. Akard St.	Dallas	TX	75202	CR1935@att.com
Mr.	Mark	Blaylock	Cookson Hills Electric Cooperative	PO Box 539	Stigler	OK	74462	mblaylock@cooksonhill.com
			Cross Telephone	PO Box 9	Warner	OK	74469	
Mr.	Robert	Castillo	East Central Oklahoma Gas Authority	210 N. Main St.	Gore	OK	74435	ecoga@crosstel.net
Ms.	Joy	Standifird	East Central Oklahoma Water Authority	212 S. Highway 100	Webbers Falls	OK	74470	ecowa@crosstel.net
Mr.	Jeremy	Lane	Gore Public Works Department	201 S. Main St.	Gore	OK	74435	goretown1@crosstel.net
			OG&E	3220 S. High Ave.	Oklahoma City	OK	73129	
			Sprint Corporation	6200 Sprint Parkway	Overland Park	KS	66251	
			Vyve Broadband	707 W. Saratoga St.	Shawnee	OK	74804	
			Windstream Communications	1437 S. Boulder Ave.	Tulsa	OK	74119	


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Redbird
Smith
MUSKOGEE TURNPIKE
Martin
McLain
Warner
Mountain
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351
Salt
Spring
Mountain
Sausbee
Mountain
Round
Mountain
64/10
Webbers
Falls
Round
Mountain
Rabbit
Hill
64
266/2
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Hill
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Mountain
Barker
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Harris
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Holt
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Map data © OpenStreetMap contributors, CC BY-SA


74401
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Gruber State Game Management Area
Cherokee State Game Refuge
Oknoname 10102 Reservoir
Sallisaw Creek Site 12 Reservoir
Warner Lake
Oknoname 101012 Reservoir
Oknoname 161003 Reservoir
10A
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Order Total = 1155
3 mi.
Map Dimensions: 39.88 mi x 29.99 mi
Map data © OpenStreetMap contributors, CC BY-SA

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL
FIRST-CLASS MAIL PERMIT NO. 5822 OKLAHOMA CITY OK

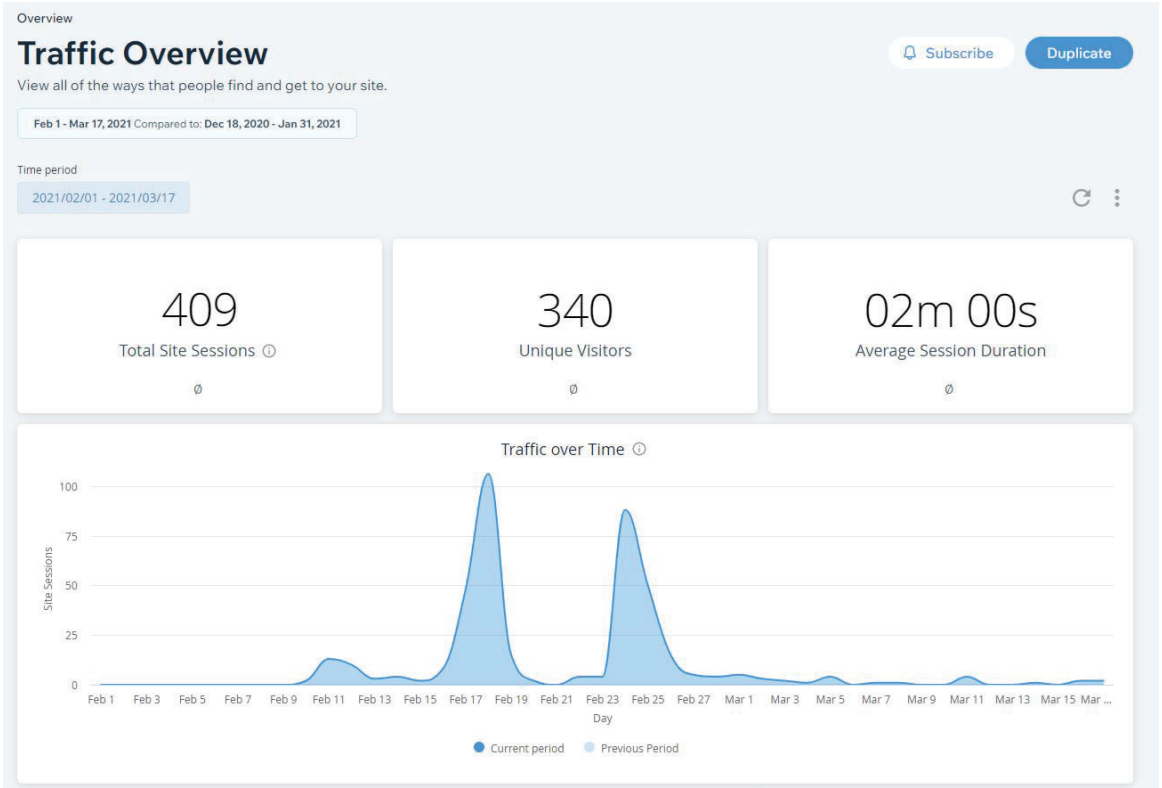
POSTAGE WILL BE PAID BY ADDRESSEE

OKLAHOMA DEPARTMENT OF TRANSPORTATION
ENVIRONMENTAL PROGRAMS DIVISIONS
200 NE 21ST STREET
OKLAHOMA CITY OK 73105-9988

Appendix B

Sign-In and Virtual Public Meeting Analytics

Name	Company	How did you hear about the Vi	Email Address	Gender (optional)	Race (optional)
Lori Menie		Mail	anymenie@webbersfalls.k12.ok.us	Female	White
Andrew D Light		flyer in mail	roosterscn@yahoo.com	Male	Native American
JESS E HEMBREE III		FACEBOOK	budd@weldonparts.com	Male	White
Dixie Conrad		Facebook	sconrad@crosstel.net	Female	
Jackson Hurst	n/a	OKDOT Email	ghostlightmater@yahoo.com	Male	White
Robert Vinson		Mailer		Male	White
Ashley Cox	Cox's Country Buffet, LLC	On a private group on faceboo	cox.ashley1024@gmail.com	Female	White
Travis Cox	Cox's Country Buffet, LLC	Facebook	tjcox1973@gmail.com	Male	Native American
Cody Austin Sloan	Sloan Farms Inc.	Farms near by	sloan_210@yahoo.com	Male	Native American
Sandra Wright			webbersfallsmayor@yahoo.com	Female	White


Overview
Traffic Overview
Subscribe
Duplicate
View all of the ways that people find and get to your site.
Feb 1 - Mar 17, 2021 Compared to: Dec 18, 2020 - Jan 31, 2021
Time period
2021/02/01 - 2021/03/17
409
Total Site Sessions
Ø
340
Unique Visitors
Ø
02m 00s
Average Session Duration
Ø
Traffic over Time
100
75
50
25
0
Site Sessions
Feb 1
Feb 3
Feb 5
Feb 7
Feb 9
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 1
Mar 3
Mar 5
Mar 7
Mar 9
Mar 11
Mar 13
Mar 15
Mar ...
Day
Current period
Previous Period

Appendix C

Virtual Public Meeting Materials

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OKLAHOMA Transportation

SH-100 Bridge over the Arkansas River



Sign In & Handout
Learn More

Project Presentation
Learn More

Interactive Project Map
Learn More

Project Schematic
Learn More

Frequently Asked Questions
Learn More

Submit a Comment
Learn More

ODOT will host a virtual open house to present the latest information on the SH-100 Bridge Improvements Project in Muskogee and Sequoyah Counties, Oklahoma. This meeting will present the proposed improvements for the project and allow the public to submit input.

Virtual Open House: February 12, 2021 – February 26, 2021

Due to concerns over the spread of COVID-19, this will be a web-based format (no in-person meeting). The information will be available beginning February 12, 2021 and comments are requested by February 26, 2021.

Visit the **meeting presentation page** to view the project presentation. This website also includes an **interactive map**, **frequently asked questions (FAQs)**and **comment form**.

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Phone Number

If you would prefer to talk with a project representative, **please call (405) 325-3269** to ask questions about the project and access project materials at any time during the project development process.

Written Comments

All comments must be received or postmarked on or before February 26, 2021. Written comments may be submitted by mail, **email**, or **online comment form** as described on the page.

Overview

The existing SH-100 bridge over the Arkansas River was built in 1969. The existing bridge is considered narrow with 11 ft. wide driving lanes and 3 ft. wide shoulders. The SH-100 bridge is also considered at-risk of becoming structurally deficient. The proposed improvements include replacing the SH-100 bridge with a new bridge on the existing alignment. The new bridge would be 40 ft. wide, consisting of two 12 ft. wide driving lanes with 8 ft. wide shoulders. The new bridge would be constructed within the existing right-of-way.

The bridge would be closed to traffic during construction with an estimated closure duration of 24 months with incentives to reduce the closure time. Highway traffic would be detoured to I-40 and SH-10 during the bridge closure.

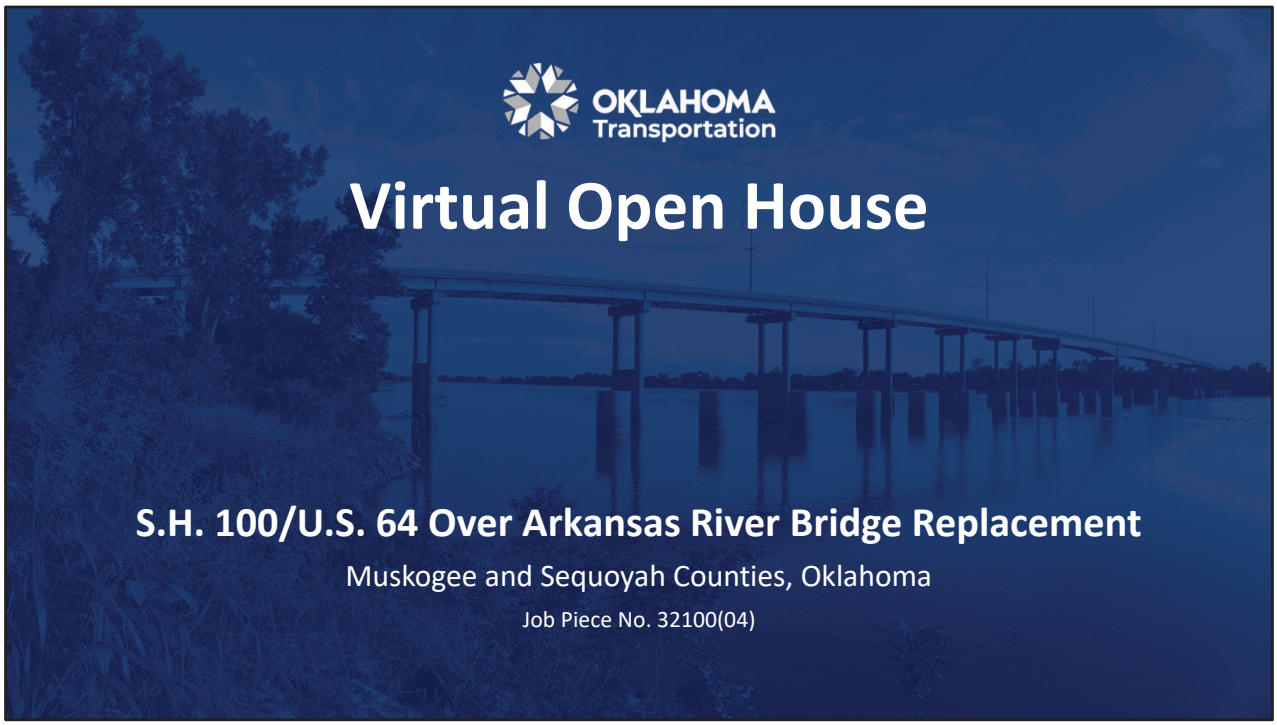
OKLAHOMA Transportation

Special Accommodations

The Oklahoma Department of Transportation (ODOT) ensures that no person or groups of persons shall, on the grounds of race, color, sex, religion, national origin, age, disability, retaliation or genetic information, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any and all programs, services, or activities administered by ODOT, its recipients, sub-recipients, and contractors. To request an accommodation please contact the ADA Coordinator at 405-521-4140 or the Oklahoma Relay Service at 1-800-722-0353, no later than 72 hours before any scheduled event. If you have any ADA or Title VI questions email **ODOT-ada-titlevi@odot.org.**

SH-100 Bridge over the Arkansas River

This website has been created to provide an online venue to distribute information and materials to the public and to allow the public to provide input into the process.

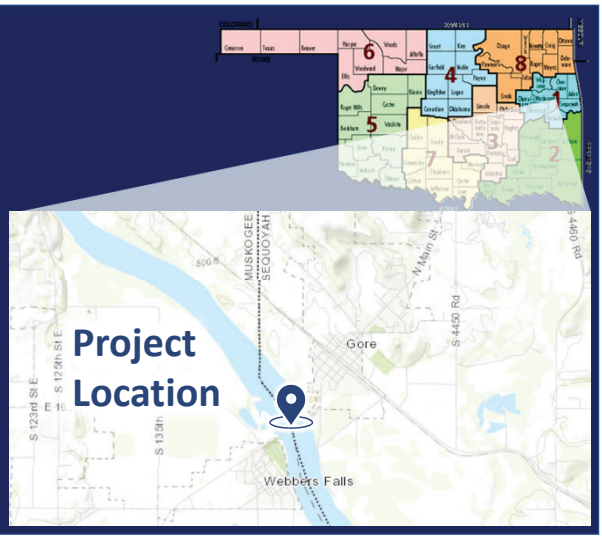


Welcome to the virtual open house for the State Highway 100 over the Arkansas River bridge replacement project.

Purpose and Location

Purpose of the Virtual Open House

Inform the public about the proposed bridge improvements for SH-100/US-64 bridge over the Arkansas River between Webbers Falls and Gore in Muskogee and Sequoyah Counties.



WHITE ENGINEERING ASSOCIATES, INC.

OKLAHOMA Transportation

The purpose of this virtual open house is to present a proposed highway bridge improvement project. Specifically, the goal of the open house is to:

- Present the proposed improvements;
- Describe the potential environmental impacts;
- Obtain public input; and
- Outline the next steps and the proposed project schedule.

The project begins on the west bank of the Arkansas River east of the Stand Waite Boulevard intersection in Webbers Falls and
extends approximately 0.5 miles east to terminate on the east bank of the river, just west of Sandplant Road in Gore. Review the map on this slide
for a depiction of the general project location.

Project Purpose and Need

The purpose of the project is to preserve transportation continuity and provide a safe crossing over the Arkansas River.

The project is needed to correct the current structural conditions and functional characteristics of the existing bridge.






WHITE ENGINEERING ASSOCIATES, INC.

OKLAHOMA Transportation

The purpose for the project is to preserve transportation continuity by providing a safe crossing over the Arkansas River. The project is needed to correct the deteriorating structural conditions of the existing bridge and substandard functional aspects for improved safety.

The existing bridge was designed and constructed in 1969. The bridge has reached the end of its intended design life and requires frequent inspections and maintenance. A new replacement is proposed to provide increased value to the public.

Proposed Bridge Replacement

Features

- Two-lane facility
- Full shoulders
- Bridge width increase from 28 ft. to 40 ft. clear roadway
- Modern bridge railings



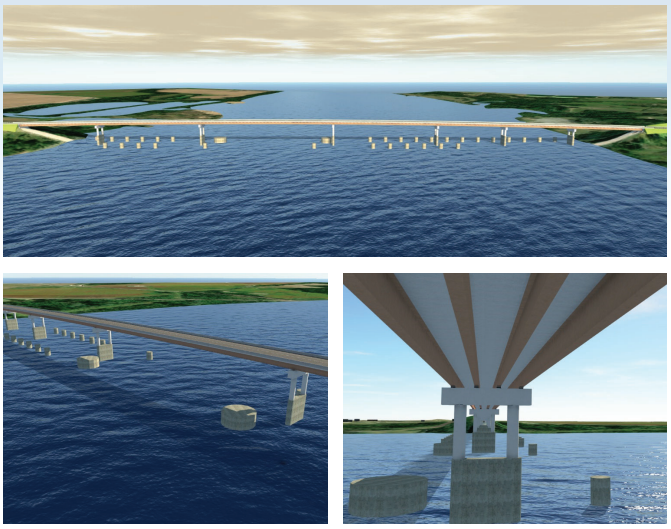
WHITE ENGINEERING ASSOCIATES, INC.

OKLAHOMA Transportation

The proposed new bridge will accommodate two driving lanes in each direction similar to the existing bridge. The new bridge will be wider by adding 8 ft. wide shoulders to each side, increasing the roadway width from 28 ft. to 40 ft. through the bridge. Modern 42-inch-tall railings will be incorporated into the design to increase safety for all bridge users.

Proposed Bridge Replacement

- Similar bridge length
- Reduced number of spans
- Increased safety
- Modern design and materials
- More robust pier construction
- Reuse of existing pier protection



WHITE ENGINEERING ASSOCIATES, INC.

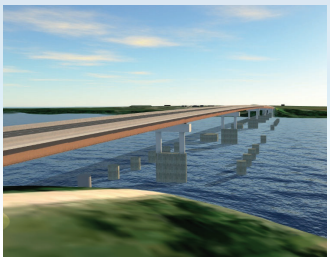
OKLAHOMA Transportation

The overall length will be similar to the current bridge, but the number of spans will be reduced from 15 to 7, using longer spans and fewer piers in the river waters. The reduction in the number of spans will provide increased safety for both boaters and highway users.

Structurally, state-of-the-art hybrid steel plate girders incorporating High-Performance Steel will be utilized to achieve the longer spans. The new bridge piers will implement concrete walls between columns to better resist debris and incidental impacts. The existing dolphin pier protection measures will remain in place for the new bridge.

Proposed Bridge Replacement







- Existing alignment maintained
- Lowered roadway/bridge height
- Minimized project extents
- Minimized construction/ road closure time
- Constructed within existing right-of-way
- Utilities will be relocated

WHITE ENGINEERING ASSOCIATES, INC.

OKLAHOMA Transportation

The existing highway horizontal alignment of S.H. 100/U.S. 64 will be maintained while the vertical alignment will be lowered by reducing the bridge height and optimizing the clearance of the bridge over the navigation channel. Project extents will be minimized on either side of the proposed bridge and new guardrail will transition to blend in with the existing guardrail.

Plans will incorporate accelerated bridge construction methods to minimize road closure times. This includes sequencing the construction of portions of the new bridge foundations prior to taking the existing bridge out of service. Special considerations will also be taken to preserve the side slopes of the existing embankments to avoid park areas and increase speed of construction. The project can be constructed within existing right-of-way and no property acquisitions are anticipated. The existing utilities will be relocated off and away from the current bridge prior to construction of the new bridge.

Proposed Detour Route

- The bridge will be closed during construction and traffic will be detoured
- The duration of the closure is estimated to be around 24 months with incentives to reduce the closure time
- Once the project is let for construction, information on actual date of closure and duration of closure can be obtained from the ODOT Field District 1 at (918) 687-5407



CP&Y

OKLAHOMA Transportation

The SH-100 bridge over the Arkansas River will be closed during construction. It is estimated that the bridge will be closed for around 24 months with contract incentives to reduce the closure duration.

The proposed detour route from the bridge in Webbers Falls is as follows. Travel southbound on SH-100/US-64 to the junction with I-40, then proceed east on I-40 to SH-10, then north on SH-10 to SH-100 in Gore, and vice-versa when traveling from Gore to Webbers Falls. While the state highway detour will be signed for the through state highway traffic, local traffic will be able to utilize local county or city roads. When the project is let for construction, more information on the actual date of closure and duration can be obtained by calling ODOT District 1 at (918) 687-5407.

Typical Environmental Evaluation Criteria

Natural Resources
- Threatened and Endangered Species
- Wetlands and Waters of the U.S.
- Critical Waters Resources

Cultural Resources
- Historic Properties / Structures
- Archeological Sites
- Historic Cemeteries
- Tribal Properties

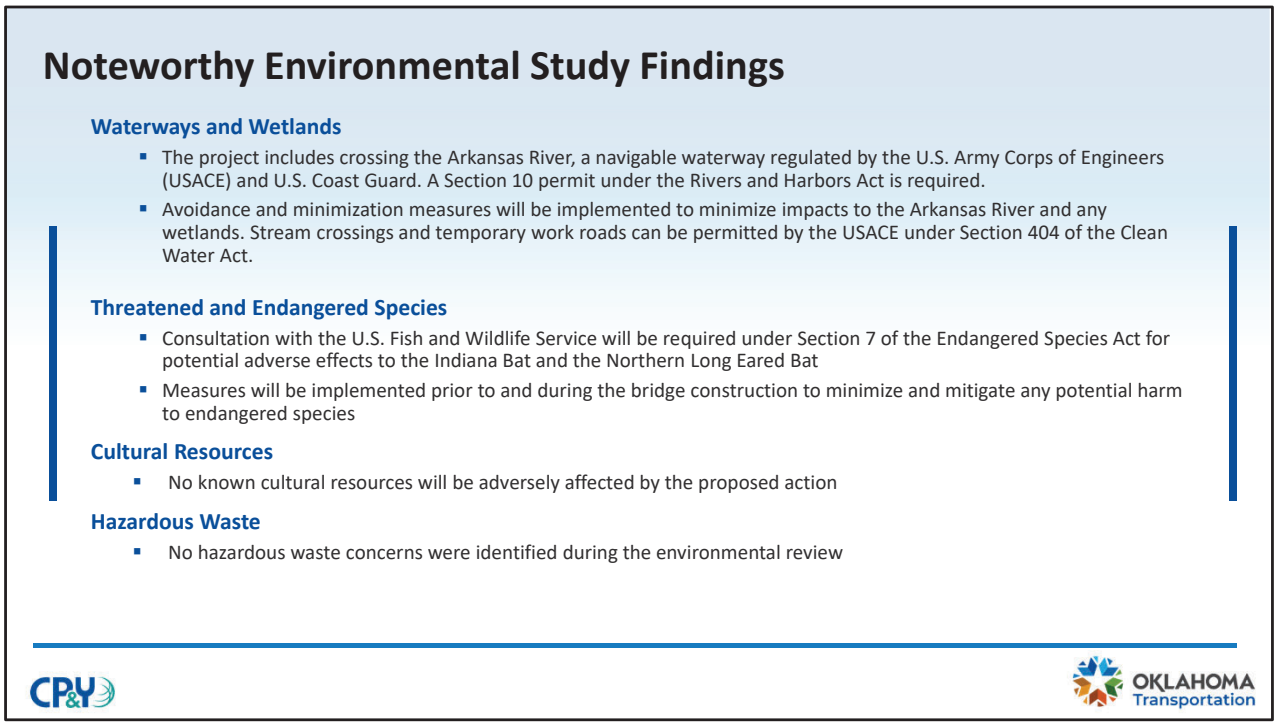
Other
- Hazardous Waste Sites / Fuel Storage Tanks
- Environmental Justice
- Community Impacts
- Parks / Recreational Areas



CP&Y

OKLAHOMA Transportation

Environmental studies have been conducted for the proposed improvements. These studies include such things as evaluating impacts to threatened and endangered species, impacts to streams and wetlands, cultural resources, hazardous waste sites, impacts to minority and low-income communities, and impacts to park or recreational areas.



The Arkansas River at the SH-100 crossing is a navigable waterway regulated by the Army Corps of Engineers and the US Coast Guard. A Section 10 permit under the River and Harbors Act will be required. A Section 404 permit under the Clean Water Act will also be required for the construction proposed within the Arkansas River channel. Habitat for endangered bat species was identified within the project area and consultation with the US Fish and Wildlife Service is ongoing for potential adverse effects to these species. Measures will be taken to minimize and mitigate potential impacts to any endangered species. No cultural resources or hazardous waste concerns were identified during the environmental studies.

Project Schedule and What to Expect

- Preliminary Design (Complete)
- Virtual Open House (February 2021)
- Complete Environmental Process (Summer 2021)
- Utility Relocation (Fall 2021)*
- Final Construction Plans (Summer 2023)
- Construction (Fiscal Year 2026)*

*Dates are subject to funding



OKLAHOMA Transportation

Regarding project schedule, the preliminary bridge design is complete. The virtual open house will be open from February 12 to February 26. The environmental process is expected to be completed this summer and utility relocation can begin once the environmental process is complete. Final construction plans are scheduled for the summer of 2023 and construction is scheduled to begin in fiscal year 2026. These dates are subject to funding and the project could be advanced if funding becomes available.

Thank You for Participating!

Please visit other areas of the website for more information.



Comments or Questions?

- Submit a written comment or question using the "Submit a Comment" page on the ODOT website www.odot.org/SH100ArkansasRiver
- Email environment@odot.org

Comments are requested by February 26, 2021. For more information, please call (405) 521-3050

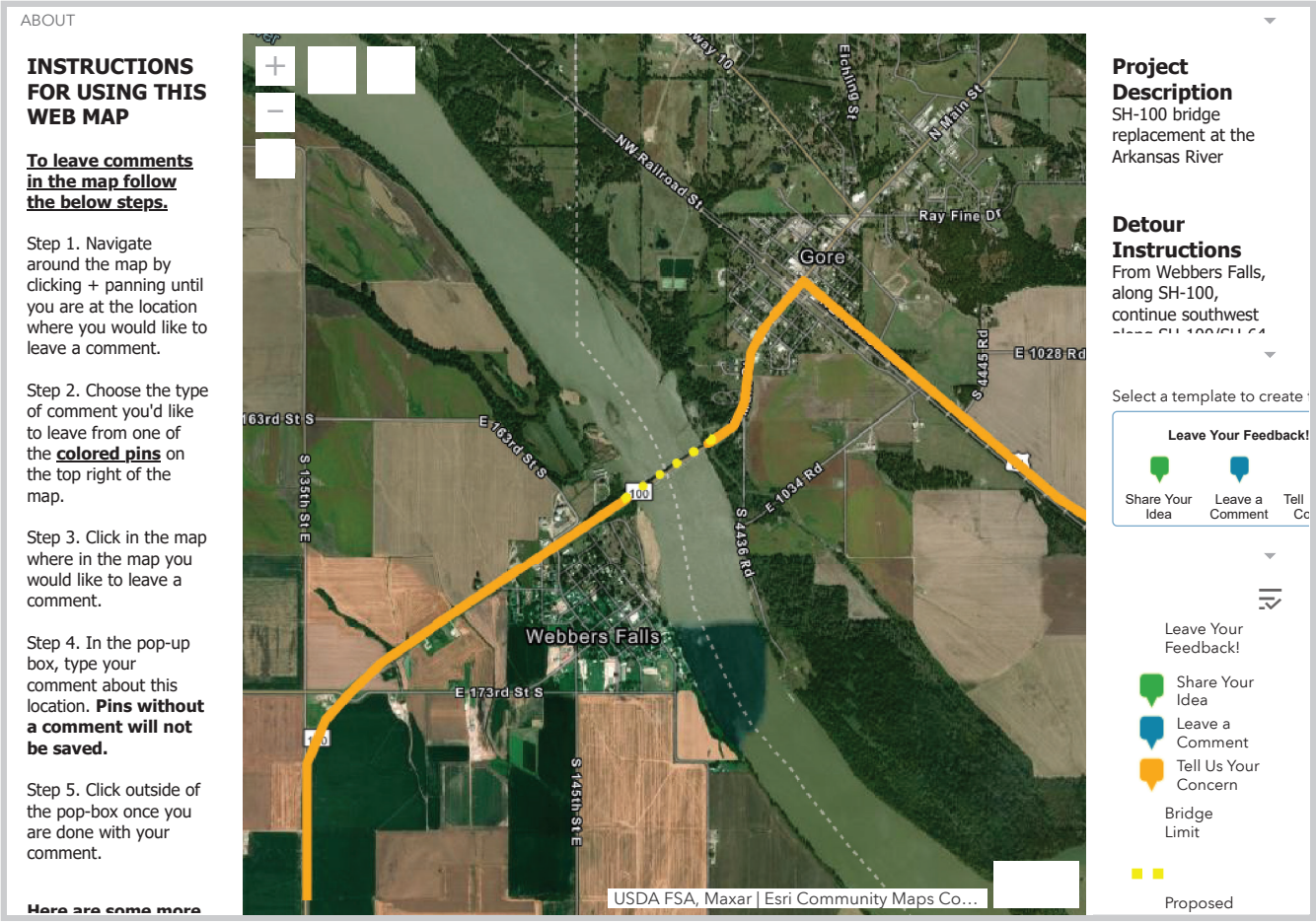
OKLAHOMA Transportation

Thank you for visiting the virtual open house for the proposed improvements to SH-100 over the Arkansas River. Please look around the website for other helpful project information. We encourage you to sign-in on the website sign-in sheet and use the website comment form to provide any comments you may have. Please provide your comments by February 26, 2021.

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INTERACTIVE PROJECT MAP

Click **here** to view the map in your browser.



SH-100 Bridge over the Arkansas River

This website has been created to provide an online venue to distribute information and materials to the public and to allow the public to provide input into the process.

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PROJECT SCHEMATIC

Download Project Schematic



SH-100 Bridge over the Arkansas River

This website has been created to provide an online venue to distribute information and materials to the public and to allow the public to provide input into the process.

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FREQUENTLY ASKED QUESTIONS (FAQs)

Why is the bridge being replaced?
The existing bridge has exceeded its planned design life and currently requires costly ongoing maintenance and frequent inspections. A replacement structure is planned to reduce ongoing costs and provide increased value to the public.

Is the current bridge dangerous?
The existing bridge is safe for travel. Conditions are being routinely monitored and any needed repairs will be addressed until the bridge is replaced.

Can the bridge be rehabilitated and/or widened instead of replacing it?
Bridge repair costs are increasing as the bridge continues to age. Rehabilitating and widening the bridge will ultimately be more expensive than replacing the structure.

Why is a new bridge safer?
A new bridge can be built wider for highway users and using fewer bridge piers in the water that can be struck by boaters and barges. Additionally, a new bridge can be designed to use more durable materials and structural systems than typically available when the current bridge was built.

Why must the road be closed for so long?
The bridge is very large and must be constructed over open waters from barges. This prevents construction operations from progressing as quickly when done from dry land. Furthermore, the river is an active commercially navigable inland waterway and barge traffic must be maintained as much as practically possible.

Will new right-of-way be required?
No acquisition of new permanent right-of-way or easement is currently anticipated for the project.

When is construction scheduled to begin?
Construction is anticipated to begin in 2026. However, the schedule is dependent on funding and subject to change.

Appendix D

Agency Solicitation Letter and List

OKLAHOMA Transportation

ENVIRONMENTAL PROGRAMS DIVISION
200 N.E. 21ST STREET
OKLAHOMA CITY, OK 73105-3204

February 10, 2021

Ms. Sue E. Masica
Regional Director - Intermountain Region Office, Planning & Environmental Quality
National Park Service
12795 W. Alameda Parkway
Denver, Colorado 80225
Email: IMRextrev@nps.gov

RE: Solicitation for SH-100: Bridge over the Arkansas River at the Muskogee/Sequoyah County line (Lat. 35.519211° / Long. -95.126370°), Muskogee County, ODOT Job Piece 32100(04), Project J3-2100(004)PM

Dear Ms. Masica:

The Oklahoma Department of Transportation (ODOT), in cooperation with the Federal Highway Administration (FHWA), is proposing to correct the narrow bridge on SH-100 over the Arkansas River. See the enclosed figure of the project location. The existing bridge is considered narrow with 11 ft. wide driving lanes and 3 ft. wide shoulders. The existing bridge is also at-risk of becoming structurally deficient. The purpose of the project is to improve safety on SH-100 by addressing the narrow width and structural deficiencies of the existing bridge. The proposed improvements would replace the SH-100 bridge with a new bridge on the existing alignment. The new bridge would be 40 ft. wide, consisting of two 12 ft. wide driving lanes with 8 ft. wide shoulders. The bridge would be closed to traffic during construction with an estimated closure duration of 24 months with incentives to reduce the closure time. Highway traffic would be detoured to I-40 and SH-10 during the closure period.

Due to ongoing concerns about COVID□19, a Virtual Open House will be held from **February 12 to February 26, 2021** at www.odot.org/SH100ArkansasRiver. The purpose of the open house is to present information about the project and obtain input from the public to further assist in the identification of critical social, economic and environmental effects that may result from the project.

To allow for adequate time for evaluation of your comments, please respond by February 26, 2021. Your written comments may be submitted on the virtual Open House website www.odot.org/SH100ArkansasRiver or in writing to the Environmental Programs Division Engineer, Oklahoma Department of Transportation, 200 NE 21st Street, Oklahoma City, OK 73105, or e-mail to environment@odot.org.

We sincerely appreciate your cooperation in this matter. Should you have any questions regarding the project, please contact our authorized consultant Scott Stegmann with CP&Y at (405) 835-2836 or sstegmann@cpyi.com.

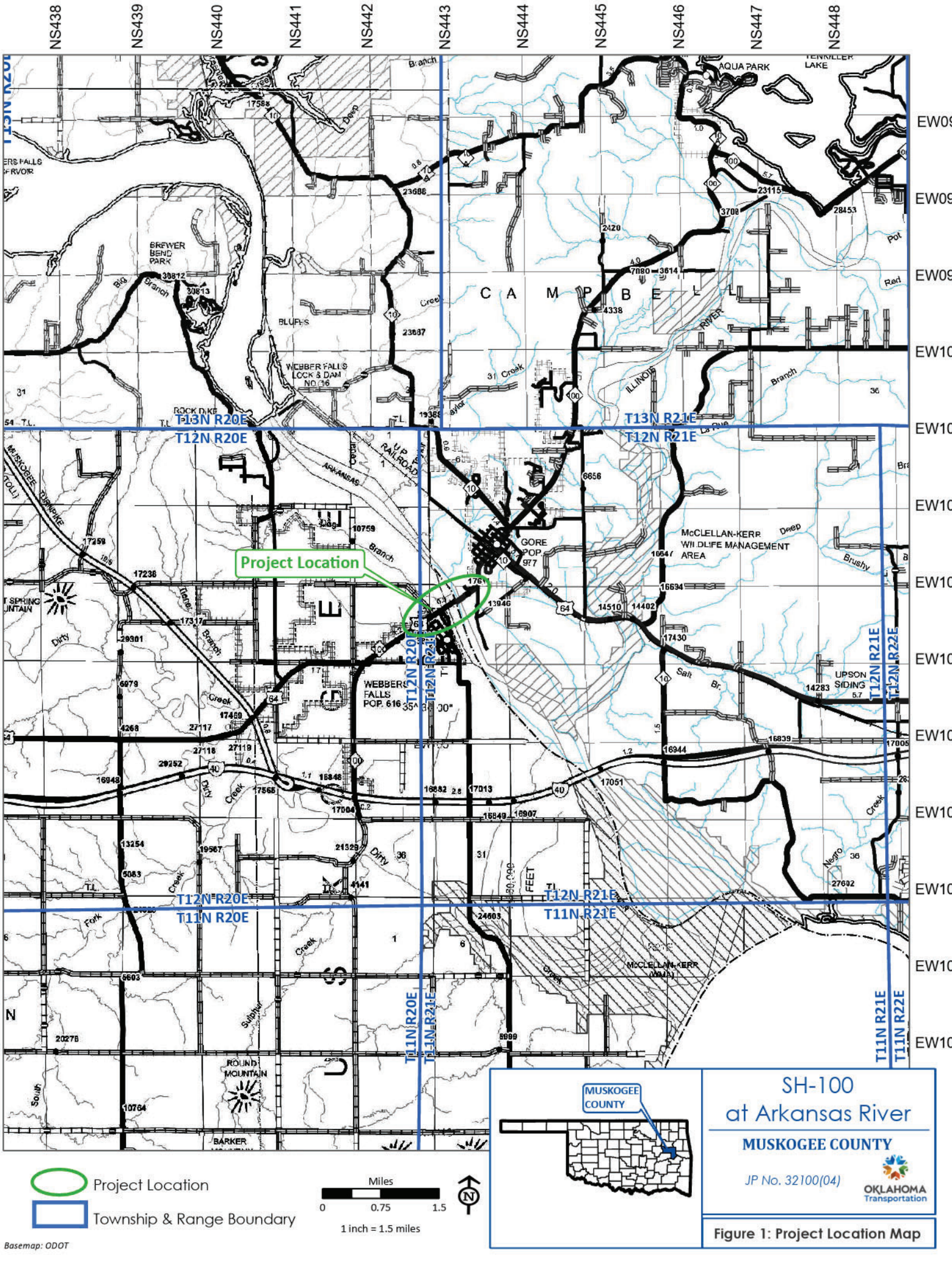
Respectfully,

Sivanuja S Sundaram

Siv Sundaram, P.E.
Environmental Programs Division Engineer

SS/AW/CP&Y

Enclosures: Location Map


NS438
NS439
NS440
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NS448
EW097
EW098
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EW103
EW104
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EW106
EW107
EW108
EW109
Project Location
T13N R20E
T12N R20E
T13N R21E
T12N R21E
T12N R22E
T11N R20E
T11N R21E
T11N R22E
WEBBERS FALLS POP. 616
GORE POP. 877
UPSON SIDING
McCLELLAN-KERR WILDLIFE MANAGEMENT AREA
AQUA PARK
BREWER BEND PARK
BLUFFS
WEBBER FALLS LOCK & DAM NO. 16
ROCK DIKE
ROUND MOUNTAIN
BARKER
ARKANSAS RIVER
ILLINOIS RIVER
Project Location
Township & Range Boundary
Miles
0
0.75
1.5
1 inch = 1.5 miles
Basemap: ODOT
MUSKOGEE COUNTY
SH-100
at Arkansas River
MUSKOGEE COUNTY
JP No. 32100(04)
OKLAHOMA Transportation
Figure 1: Project Location Map

Agency Solicitation

Title	First Name	Last Name	Salutation	Job Title	Agency	Street	City	State	Zip	Phone	Mail	Comments	Webpage
Mr.	James	Allard	Mr. Allard	Field Office Manager	Bureau of Reclamation	5924 NW 2nd Street, Suite 200	Oklahoma City	Oklahoma	73127	405.470.4800	US	For projects near dams, powerplants, and canals	http://www.usbr.gov/gp/otao/
Mr.	Michael J.	Ryan	Mr. Ryan	Regional Director	Bureau of Reclamation	P.O. Box 36900	Billings	Montana	59107	406.247.7600	US	For projects near dams, powerplants, and canals. Needed only for state highways	http://www.usbr.gov/gp/otao/
Ms.	Carolyn	Russell	Ms. Russell	Realty Specialist - Oklahoma Field Office	Bureau of Land Management	201 Stephenson Parkway, Suite 1200	Norman	Oklahoma	73072-2037		US	For all projects	http://www.blm.gov/nm/st/en/info/directory/OKFO_Directory.html
Mr.	Eric	Washburn	Mr. Washburn	Bridge Administrator	U.S. Coast Guard Eighth Coast Guard District	1222 Spruce Street, Suite 7103	St. Louis	Missouri	63103	314.269.2378	US	Projects involving Section 10 Waters(Send one if in question about the need for Coast Guard Permit)	http://www.uscg.mil/d8/WesternRiversBridges/
Mr.	Scott	Robinson	Mr. Robinson	Port Director	Muskogee City-County Port Authority	P.O. Box 2819	Muskogee	Oklahoma	74434			email solicitation letter and attachments to scott@muskogeeport.com	
Ms.	Kimbra	Scott	Ms. Scott	Deputy Director	Muskogee City-County Port Authority	P.O. Box 2819	Muskogee	Oklahoma	74434			email solicitation letter and attachments to kimbra@muskogeeport.com	
Mr.	Basharat	Siddiqi	Mr. Siddiqi	Division Administrator	Federal Highway Administration	5801 N. Broadway Extension, Suite 300	Oklahoma City	Oklahoma	73118	405.254.3300	US	Send only if no public meeting is held.	http://www.fhwa.dot.gov/okdiv/index.htm
Mr.	Andrew	Commer	Mr. Commer	Regulatory Branch Chief	Tulsa District Corps of Engineers	2488 E. 81st Street	Tulsa	Oklahoma	74137-4290	918.669.7400	US		
Colonel	Scott	Preston	Colonel Preston	Commander & District Engineer	Tulsa District Corps of Engineers	2488 E. 81st Street	Tulsa	Oklahoma	74137-4290	918.669.7201	US		
Mr.	Steve	Nolen	Mr. Nolen	Planning & Environmental (PER) Division	Tulsa District Corps of Engineers	2488 E. 81st Street	Tulsa	Oklahoma	74137-4290	918.669 7183	US		
Mr.	Greg	Estep	Mr. Estep	Chief - Hydraulics & Hydrology Branch	Tulsa District Corps of Engineers	2488 E. 81st Street	Tulsa	Oklahoma	74137-4290	918-669-7132	US		
Mr.	Scott	Henderson	Mr. Henderson	Chief - Water Management	Tulsa District Corps of Engineers	2488 E. 81st Street	Tulsa	Oklahoma	74137-4290	918-669-7509	US		
Ms.	Michelle	Lay	Ms. Lay	Chief - Civil Design Section	Tulsa District Corps of Engineers	2488 E. 81st Street	Tulsa	Oklahoma	74137-4290	918-669-4380	US		
Mr.	David	Blackmore	Mr. Blackmore	Engineering Branch, Infrastructure Section	Tulsa District Corps of Engineers	2488 E. 81st Street	Tulsa	Oklahoma	74137-4290	918-669-7161	US		
Mr.	Dennis	Covey	Mr. Covey	Tenkiller Lake Manager	Tulsa District Corps of Engineers	446977 E. 980 Rd.	Gore	Oklahoma	74435				
Mr.	Eddie	Streater	Mr. Streater	Regional Director, Eastern Oklahoma Region	Bureau of Indian Affairs	P.O. Box 8002	Muskogee	Oklahoma	74402-8002	918.781.4100	US	Indian lands involvement E of Old Oklahoma Indian Territory Boundary COPY Tribal Liaison	
Ms.	Sue E.	Masica	Ms. Masica	Regional Director - Intermountain Region Office, Planning & Environmental Quality	National Park Service	~~12795 W. Alameda Parkway~~	Denver	Colorado	80225	303. 969.2500	US	email Solicitation letter with attachments to IMRextrev@nps.gov . They do not want papercopies.	
Mr.	Steve	Spencer	Mr. Spencer	Regional Environmental Officer	U.S. Department of the Interior	1001 Indian School NW, Suite 348	Albuquerque	New Mexico	87104	505.563.3572	US		
Mr.	Grayson	Ardies	Mr. Ardies	Director	Oklahoma Aeronautics Commission	110 N. Robinson, Suite 200	Oklahoma City	Oklahoma	73102	405.604.6900	US		http://www.ok.gov/OAC/Staff/index.html
Mr.	Brad	Ice	Mr. Ice	Manager of Field Operations	Oklahoma Corporation Commission	~~Jim Thorpe Building, 2101 North Lincoln Blvd.~~	Oklahoma City	Oklahoma	73105	405.521.2301	US	email Solicitation letter with attachments to brad.ice@occ.ok.gov. They do not want papercopies.	http://www.occeweb.com/contact%20list/OG.htm
			To Whom it May Concern	Environmental Review Coordinator	DEQ Customer Assistance Program	P.O. Box 1677	Oklahoma City	Oklahoma	73101-1677	405.702.1000	US	Note: Will search OSDH files for hazardous waste/Superfund sites & provide a written response. In addition, will comment on Water Quality, Air Quality, Solid Waste & Man-made Hazards. Email a copy of the letter to:	EnvReviews@deq.ok.gov
Ms.	Lynda	Ozan	Ms. Ozan	Deputy Historic Preservation Officer	Oklahoma Historical Society	800 Nazih Zuhdi Drive	Oklahoma City	Oklahoma	73105-7917	405.522.5202	US	CC Scott Sundermeyer ODOT Cultural Resources Director on the Solicitation letter, Send only if no public meeting is held	
Mr.	Sean	Kouplen	Secretary Kouplen	Secretary of Commerce and Workforce Department, Cabinet Secretary	Oklahoma Department of Commerce	900 North Stiles	Oklahoma City	Oklahoma	73104	800.879.6552	US		
Mr.	Matt	Pinnell	Secretary Pinell	Secretary of Tourism and Branding	Oklahoma Department of Commerce	900 North Stiles	Oklahoma City	Oklahoma	73104	Unknown			
Mr.	J.D.	Strong	Mr. Strong	Director	Department of Wildlife Conservation	P.O. Box 53465	Oklahoma City	Oklahoma	73152	405.521.3851	US		
Mr.	Trey	Lam	Mr. Lam	Executive Director	Oklahoma Conservation Commission	2800 North Lincoln Blvd., Ste. 160	Oklahoma City	Oklahoma	73105	405.521.2384	US		
Commissioner	Blayne	Arthur	Commissioner Arthur	Commissioner of Agriculture	Department of Agriculture	2800 N. Lincoln Blvd., P.O. Box 54298	Oklahoma City	Oklahoma	73105-4298	405.521.3864	US		
Ms.	Julie	Cunningham	Ms. Cunningham	Executive Director	Oklahoma Water Resources Board	3800 North Classen	Oklahoma City	Oklahoma	73118	405.530.8800	US		
Dr.	David	Brown	Dr. Brown	Director	Oklahoma Geological Survey	100 East Boyd, Room N-131	Norman	Oklahoma	73019-0628	405.325.3031	US		jboak@ou.edu
Dr.	Kary	Stackelbeck	Dr. Stackelbeck		Oklahoma State Archeologist	111 East Chesapeake, Building 134	Norman	Oklahoma	73019-5111	405.325.7246	US	CC Scott Sundermeyer ODOT Cultural Resources Director on the Solicitation letter, Send only if no public meeting is held	
Ms.	Joy	Hofmeister	Superintendent Hofmeister	State Superintendent	State Department of Education	2500 North Lincoln Blvd., Rm. 121	Oklahoma City	Oklahoma	73105-4599	405.521.3301	US		
Ms.	Kristina S.	Marek	Ms. Marek	Director, State Parks	Oklahoma Tourism & Recreation Department	123 Robert S. Kerr, Suite 900	Oklahoma City	Oklahoma	73102	405.230.8476	US	Will check for park & recreation area involvement. Send EIS statement.	
Mr.	Ernie	Moore	Mr. Moore	Executive Director	Eastern Oklahoma Development District	1012 North 38th Street, P.O. 1367	Muskogee	Oklahoma	74402	918.682.7891	US	Counties Served: Adair, Cherokee, McIntosh,Muskogee, Okmulgee, Sequoyah,Wagoner	
Chief	Nelson	Harjo	Chief Harjo		Alabama Quassarte Tribal Town	101 E. Broadway, P.O Box 187	Wetumka	Oklahoma	74883	405.452.3987	US	Get the project specific list of Tribes from Rhonda Fair COPY Tribal Liaison	
Chairperson	Tamara	Francis	Chairperson Francis		Caddo Nation	P.O. Box 487	Binger	Oklahoma	73009	(405) 656-2344	US	Get the project specific list of Tribes from Rhonda Fair COPY Tribal Liaison	
Principal Chief	Chuck	Hoskin	Principal Chief Hoskin		Cherokee Nation	P.O. Box 948	Tahlequah	Oklahoma	74465	(918) 456-0671	US	Get the project specific list of Tribes from Rhonda Fair COPY Tribal Liaison	
Mekko	Brian	Givens	Mekko Givens		Kialegee Tribal Town	P.O. Box 332	Wetumka	Oklahoma	74883	(405) 452-3262	US	Get the project specific list of Tribes from Rhonda Fair COPY Tribal Liaison	
Principal Chief	David	Hill	Principal Chief Hill		Muscogee (Creek) Nation	P.O. Box 580	Okmulgee	Oklahoma	74447	(918) 756-8700	US	Get the project specific list of Tribes from Rhonda Fair COPY Tribal Liaison	
Principal Chief	Geoffrey	Standing Bear	Principal Chief Standing Bear		Osage Nation	627 Grandview	Pawhuska	Oklahoma	74056	(918) 287-5432	US	Get the project specific list of Tribes from Rhonda Fair COPY Tribal Liaison	
Mekko	Ryan	Morrow	Mekko Morrow		Thlopthlocco Tribal Town	P.O. Box 188	Okemah	Oklahoma	74859-0188	(918) 623-2620	US	Get the project specific list of Tribes from Rhonda Fair COPY Tribal Liaison	
Chief	Joe	Bunch	Chief Bunch		United Keetoowah Band Of Cherokee Indians In Oklahoma	P.O. Box 746	Tahlequah	Oklahoma	74465	(918) 431-1818	US	Get the project specific list of Tribes from Rhonda Fair COPY Tribal Liaison	
President	Terri	Parton	President Parton		Wichita And Affiliated Tribes	P.O. Box 729	Anadarko	Oklahoma	73005	(405) 247-2425	US	Get the project specific list of Tribes from Rhonda Fair COPY Tribal Liaison	

Appendix E

Written Comments

Agency Comment

Archived: Thursday, March 18, 2021 5:31:42 PM
From: Andrew Ward
Sent: Thu, 4 Mar 2021 22:05:20 +0000Received: from MWHPR22CA0054.namprd22.prod.outlook.com (2603:10b6:300:12a::16) by DM6PR08MB5545.namprd08.prod.outlook.com (2603:10b6:5:10c::27) with Microsoft SMTP Server (version=TLS1_2, cipher=TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384) id 15.20.3890.19; Thu, 4 Mar 2021 22:05:18 +0000Received: from MW2NAM10FT017.eop
To: Scott Stegmann
Cc: Siv Sundaram
Subject: FW: Environmental Impact Review
Importance: Normal

From: Jenny Droscher <JDroscher@odot.org>
Sent: Thursday, March 4, 2021 3:20 PM
To: Andrew Ward <WWard@odot.org>
Cc: ODOTWeb-environment <environment@odot.org>
Subject: Fw: Environmental Impact Review

Andrew, the email below looks like it is also for District 1. Thanks!

Jenny Droscher
Public Involvement Officer
ODOT Cultural Resources Program
ODOT Environmental Programs Division
405-246-6975

OKLAHOMA Transportation
MAKE SAFETY STICK EVERYBODY CLICK

From: Jon Roberts <Jon.Roberts@deq.ok.gov> on behalf of DEQ EnvReviews <EnvReviews@deq.ok.gov>
Sent: Tuesday, March 2, 2021 12:13 PM
To: ODOTWeb-environment <environment@odot.org>
Subject: Environmental Impact Review

Dear Ms. Sundaram:

In response to your request, we have completed a general environmental impact review for the project listed below.

Project
Letter dated February 10, 2021 – SH-100 Bridge over the Arkansas River at the Muskogee/Sequoyah County Line, Job Piece No. 32100(04), Project No. J3-2100(004)PM, Muskogee & Sequoyah Counties, OK [35.519, -95.126]

Comments
No adverse environmental impacts under DEQ jurisdiction are anticipated; however, please be aware of the following:

A. Prior to beginning any construction activity disturbing more than one acre, you must submit an NOI and obtain authorization under OKR10, construction stormwater. If you need assistance, please contact DEQ's Stormwater Unit at (405) 702-6100.

B. It is unclear if water or wastewater utilities will need to be relocated as part of this project. Water and wastewater infrastructure projects that will require a construction permit from DEQ's Water Quality Division include the following:
   - Construction of new water and wastewater treatment facilities;
   - Modifications and upgrades to existing facilities;
   - Construction of new water distribution and wastewater collection lines;
   - Relocation of existing water distribution and wastewater collection lines.

   Projects that do not require a construction permit include:
   - Replacement of existing equipment with same type and size equipment;
   - Replacement of existing water and wastewater lines with the same size line in the same location.

   Please contact DEQ's Water Quality Division (Construction Permitting Section) if you have specific questions about these projects or need further clarification. Rocky Chen is the Manager of this section and can be reached at (405) 702-8140 or rocky.chen@deq.ok.gov.

Additional recommendations to consider may be found at https://go.usa.gov/xf96W.

Thank you for the opportunity to provide our comments. If you have any questions or need clarification, please contact me.

Regards,

Jon A. Roberts, Senior Manager
Oklahoma Department of Environmental Quality
Office of External Affairs
P. O. Box 1677
707 N. Robinson Ave.
Oklahoma City, OK 73101-1677
Ph: (405) 702-7111



Online Comments

Name	Company	Email Address	Comment
Andrew D Light		roosterscn@yahoo.com	In your presentation, you mention "Community Impact" but I then heard nothing about the fact that Webbers Falls, without easy access to Gore, is a food desert with no grocery stores whatsoever. Additionally, no doctor or pharmacy either. Leaving people in Webbers who often are old, poor and on a fixed income (myself included) with now an overly-extended drive to get even the most basic of necessities does not seem like a very considerate way of dealing with the issues we will all be facing. And let's face it-the price of gas will be insane by then so it will be a true hardship on most to have to drive that far.
Jackson Hurst	n/a	ghostlightmater@yahoo.com	I approve and support the OK-100 Bridge over the Arkansas River Project because it will replace the existing bridge with one that is safer.
Robin Henry	Twice the Ice	krhenryus@yahoo.com	This project will be devastating to our small community. I understand we will have to endure the hardship in order to have a safe bridge but I am hoping ODOT will consider starting the project after our peak tourism season is over. That at least would give our businesses a positive season going into the project.
Kayleigh Perry		kayleigh.blaze@gmail.com	I do not see a need in a four lane bridge when our roads on each side are not four lanes. I do agree with the added shoulders but not the extra lanes.
Brannon See	Riverside Eqhipment and Service	brannon.a.see@gmail.com	Have you thought about building the new bridge on old bridge rd?
Robert VInson			The current bridge has power lines on it. Where will they be located in the new design. The new bridge will be wider will there still be a sidewalk on it like there is on the current bridge or will people just walk on the shoulder.
Susan Fields		fieldsgore@aol.com	I am so glad the bridge is going to be done. I have been concerned for years as it was not designed for the traffic it carried after the I40 bridge collapse. There will be complainers, our community is packed with them. All I ask is that you make us as safe as you can as quickly as possible! Thanks!

Online Comments

Ashley Cox	Cox's Country Buffet, LLC	cox.ashley1024@gmail.com	My family owns a business in Webbers Falls. We fear that the length of the bridge construction will not only hurt our business but also our Towns revenue, other businesses in Webbers Falls and the revenue of our neighboring community in Gore.
Cody Sloan	Sloan Farms Inc.	sloan_210@yahoo.com	We can't wait until this is completed! We farm on both sides of the river, and use this bridge for transportation of large machinery daily. One thing that needs to make certain is that no construction is done simultaneously on any part of the detour or I-40 area that would limit to one lane. We are going to have to work with highway patrol and law enforcement to get escorts on I-40 which is ok, but if there is construction on any of the detour route we wouldn't be able to move our machinery from field to field. Thanks, Cody Sloan

OKLAHOMA Transportation

VIRTUAL OPEN HOUSE
COMMENT FORM

www.odot.org/SH100ArkansasRiver

SH-100 Bridge over the Arkansas River
Muskogee/Sequoyah Counties; J/P Number: 32100(04)

FEBRUARY 12, 2021 - FEBRUARY 26, 2021

Thank you for your interest in this study and taking the time to provide us with your written comments. Putting your comments in writing is one of the most effective ways to have your concerns addressed.

PLEASE SUBMIT YOUR COMMENTS BY: FEBRUARY 26, 2021

Please print clearly. Personal Information Optional

Name:	Business / Organization:		
MATTHEW JONES	—		
Address:	**City:**	**State:**	**Zip Code:**
8996 E. 163rd ST. S.	WEBBERS FALLS	OK	74470
Phone Number:	**Email Address:**		
918-457-8602			

"I have the following comment(s) and/or question(s) about the proposed improvements to the SH-100 Bridge over the Arkansas River"

This is a needed upgrade. There are many residents who go to Gore for groceries & medicine/DR. appts. I realize this is a large-expensive project. A lot of the people who travel for food, etc. are "lower income." I believe the project could/should be quicker than 24 months. I know the work can be done quickly, but the cost goes up. The lower income folks in the community will feel the strain in their pocketbook. Please consider allocating more monies to the project to: Speed up the construction, and lower the burden placed on my neighbors. Thank you for considering my concern. This is one of many I have; I feel it to be the most important.

Comments on this study can be submitted in several ways, including but not limited to:

By U.S. Mail:
OKLAHOMA DEPARTMENT OF TRANSPORTATION
Environmental Programs Division
200 N.E. 21st Street
Oklahoma City, OK 73105

By Email:
environment@odot.org

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OKLAHOMA DEPARTMENT OF TRANSPORTATION
COMMENT FORM

OKLAHO.
Transportatio.

Another concern: Public safety. Part of Muskogee county is on the east side of the river. The county sheriff is responsible for that coverage. The call response time could be affected due to increased response time. The W.F. & Coore fire department would also see an increase in mutual aide response time.

Some of the W. F. residents walk to COORE FOR essential items at Herps, Dollar General, etc. and they walk across the current bridge. The new bridge will be much safer for these residents of the community. Thank you for the wider design.

Please consider speeding up the construction time for this project.

Also, you may check with property owners along "Dirty Creek" to see if they would like any of the concrete debris to use as rip-rap.

Again, thank you for the opportunity to provide input.

Matthew W. Jones

Matthew W. Jones

OKLAHOMA Transportation

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www.odot.org/SH100ArkansasRiver

SH-100 Bridge over the Arkansas River
Muskogee/Sequoyah Counties; J/P Number: 32100(04)

FEBRUARY 12, 2021 - FEBRUARY 26, 2021

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PLEASE SUBMIT YOUR COMMENTS BY: FEBRUARY 26, 2021

Please print clearly. Personal Information Optional

Name:	Business / Organization:		
Rick G Spears	Ret		
Address:	**City:**	**State:**	**Zip Code:**
10167 S 4430 Rd	Gore	OK	74435
Phone Number: Cell 918-869-2457 Home 918-489-2340	**Email Address:**		

"I have the following comment(s) and/or question(s) about the proposed improvements to the SH-100 Bridge over the Arkansas River"

This Bridge Needed Replaced Years Ago. Please do it!

Comments on this study can be submitted in several ways, including but not limited to:

By U.S. Mail:
OKLAHOMA DEPARTMENT OF TRANSPORTATION
Environmental Programs Division
200 N.E. 21st Street
Oklahoma City, OK 73105

By Email:
environment@odot.org

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SH-100 Bridge over the Arkansas River
Muskogee/Sequoyah Counties; J/P Number: 32100(04)

FEBRUARY 12, 2021 - FEBRUARY 26, 2021

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PLEASE SUBMIT YOUR COMMENTS BY: FEBRUARY 26, 2021

Please print clearly. Personal Information Optional

Name:	*Business / Organization:*		
Address:	*City:*	*State:*	*Zip Code:*
Phone Number:	*Email Address:*		

"I have the following comment(s) and/or question(s) about the proposed improvements to the SH-100 Bridge over the Arkansas River"

What a waste of $ money! We have lived @ Gore our entire lives - the bridge is fine. There is no need for a new bridge.

Instead resurface all these roads. Widen the 2 lane roads w/ no shoulders.

Thanks for asking our opinion tho. — As if it really matters.

Comments on this study can be submitted in several ways, including but not limited to:

By U.S. Mail:
OKLAHOMA DEPARTMENT OF TRANSPORTATION
Environmental Programs Division
200 N.E. 21st Street
Oklahoma City, OK 73105

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SH-100 Bridge over the Arkansas River
Muskogee/Sequoyah Counties; J/P Number: 32100(04)

FEBRUARY 12, 2021 - FEBRUARY 26, 2021

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PLEASE SUBMIT YOUR COMMENTS BY: FEBRUARY 26, 2021

Please print clearly. Personal Information Optional

Name:	Business / Organization:		
Gail A Hiebert	Contractor Farmer		
Address:	**City:**	**State:**	**Zip Code:**
152705 85St E	Webbers Falls	OK	74470
Phone Number:	**Email Address:**		
9183480606			

"I have the following comment(s) and/or question(s) about the proposed improvements to the SH-100 Bridge over the Arkansas River"

How will Farmers get Equipment across when they Farm on Both Sides of the River?

Comments on this study can be submitted in several ways, including but not limited to:

By U.S. Mail:
OKLAHOMA DEPARTMENT OF TRANSPORTATION
Environmental Programs Division
200 N.E. 21st Street
Oklahoma City, OK 73105

By Email:
environment@odot.org

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SH-100 Bridge over the Arkansas River
Muskogee/Sequoyah Counties; J/P Number: 32100(04)

FEBRUARY 12, 2021 - FEBRUARY 26, 2021

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PLEASE SUBMIT YOUR COMMENTS BY: FEBRUARY 26, 2021

Please print clearly. Personal Information Optional

Name: R. W. JONES	Business / Organization:		
Address: 10579E 163RD ST. South	City: WEBBER FALLS	State: OK	Zip Code: 74470
Phone Number: 9189900955	Email Address:		

"I have the following comment(s) and/or question(s) about the proposed improvements to the SH-100 Bridge over the Arkansas River"

Good news the bridge is really needed Repaied or replaced. Better it will be wider & a good walking path across Bridge ss you won't worry about hitting someone. It is good bridges are being redone & replaced they really needed it. Glad to know we will be kept informed Keep up the good Jobe

Thanks R W

Comments on this study can be submitted in several ways, including but not limited to:

By U.S. Mail:
OKLAHOMA DEPARTMENT OF TRANSPORTATION
Environmental Programs Division
200 N.E. 21st Street
Oklahoma City, OK 73105

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SH-100 Bridge over the Arkansas River
Muskogee/Sequoyah Counties; J/P Number: 32100(04)

FEBRUARY 12, 2021 - FEBRUARY 26, 2021

Thank you for your interest in this study and taking the time to provide us with your written comments. Putting your comments in writing is one of the most effective ways to have your concerns addressed.

PLEASE SUBMIT YOUR COMMENTS BY: FEBRUARY 26, 2021

Please print clearly. Personal Information Optional

Name:	Business / Organization:		
Calvin Sabrowski	SJS Farms, Inc		
Address:	**City:**	**State:**	**Zip Code:**
106 W 9th Street	Gore	OK	74435
Phone Number:	**Email Address:**		
970-596-2938	Calvin.Sabrowski1@gmail.com,		

"I have the following comment(s) and/or question(s) about the proposed improvements to the SH-100 Bridge over the Arkansas River"

- Bridge definatly needs replaced/operated, very hard to manuver farm equipt
- the 24 month shutdown of the bridge, re-route on I40 would be extremly difficult for us, as we farm on either side of the Bridge, and the 12 mile detour on I40 would be a nightmare with the farm equipment.
- Would it be possible to Build the new Bridge right beside the old Bridge, leaves the old Bridge accessible until the new one is complete? It would definatly Lift a burden off of us and every other person who relies on this Bridge every day.

more →

Comments on this study can be submitted in several ways, including but not limited to:

By U.S. Mail:
OKLAHOMA DEPARTMENT OF TRANSPORTATION
Environmental Programs Division
200 N.E. 21st Street
Oklahoma City, OK 73105

By Email:
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- with the fire department, when we have a major accident with the I-40 Bridge we typically re-route traffic over this Bridge, to make a faster scene work environment for everyone involved,
- closing this Bridge for ≥4 months would not allow us to de-tour traffic over it and would cause Massive Backups on I-40.

OKLAHOMA Transportation

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www.odot.org/SH100ArkansasRiver

SH-100 Bridge over the Arkansas River
Muskogee/Sequoyah Counties; J/P Number: 32100(04)

FEBRUARY 12, 2021 - FEBRUARY 26, 2021

Thank you for your interest in this study and taking the time to provide us with your written comments. Putting your comments in writing is one of the most effective ways to have your concerns addressed.

PLEASE SUBMIT YOUR COMMENTS BY: FEBRUARY 26, 2021

Please print clearly. Personal Information Optional

Name:	Business / Organization:		
Ronald H. Cossey	Retired		
Address:	**City:**	**State:**	**Zip Code:**
301 Highland Rd. OR.	Gore	OK	74435
Phone Number:	**Email Address:**		
918-489-5537	snowhawk42@ymail.com		

"I have the following comment(s) and/or question(s) about the proposed improvements to the SH-100 Bridge over the Arkansas River"

a Pedestain walk on one side and Bike Path on the other side

Comments on this study can be submitted in several ways, including but not limited to:

By U.S. Mail:
OKLAHOMA DEPARTMENT OF TRANSPORTATION
Environmental Programs Division
200 N.E. 21st Street
Oklahoma City, OK 73105

By Email:
environment@odot.org

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Archived: Friday, March 19, 2021 3:13:07 PM
From: Jenny Droscher
Sent: Fri, 26 Feb 2021 20:11:03 +0000Received: from MW4PR03CA0239.namprd03.prod.outlook.com (2603:10b6:303:b9::34) by DM6PR08MB5659.namprd08.prod.outlook.com (2603:10b6:5:106::12) with Microsoft SMTP Server (version=TLS1_2, cipher=TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384) id 15.20.3890.20; Fri, 26 Feb 2021 20:11:02 +0000Received: from MW2NAM10FT023.eop
To: Scott Stegmann
Cc: ODOTWeb-environment; Brian Linam; Andrew Ward
Subject: Fw: [EXTERNAL] SH-100 Bridge over the Arkansas River Comments
Importance: Normal

Hi Scott,

Please see the email below from Mr. Sloan regarding the subject project.

Thank you.

Jenny Droscher
Public Involvement Officer
ODOT Cultural Resources Program
ODOT Environmental Programs Division
405-246-6975

From: Jenny Droscher <JDroscher@odot.org>
Sent: Friday, February 26, 2021 2:08 PM
To: Cody Sloan <sloan_210@yahoo.com>
Subject: Re: [EXTERNAL] SH-100 Bridge over the Arkansas River Comments

Good afternoon Mr. Sloan,

Thank you for your email. I have forwarded it to the appropriate representative.

Jenny Droscher
Public Involvement Officer
ODOT Cultural Resources Program
ODOT Environmental Programs Division
405-246-6975

From: Cody Sloan <sloan_210@yahoo.com>
Sent: Friday, February 26, 2021 7:16 AM
To: ODOTWeb-environment <environment@odot.org>
Subject: [EXTERNAL] SH-100 Bridge over the Arkansas River Comments

Good Morning,

We are so excited to see this new bridge being built! We farm on both sides of the bridge and wanted to make sure that our comments were heard. We move large machinery across the current bridge daily. Our sometimes exceed one lane, so the department needs to make for certain that zero lane closures for construction will take place simultaneously on any of the detour span.

We will be working with the Highway Patrol and local law enforcements to get police escorts on I-40 but we must ensure no construction lane closures take place on the detour section.

Thank you,
Cody Sloan
Sloan Farms Inc.
918-685-1950
P.O. Box 991
Gore, Ok 74435

Sent from Mail for Windows 10

Archived: Friday, March 19, 2021 3:23:21 PM
From: Scott Stegmann
To: 'ecoga@crosstel.net'
Bcc: 'Brian Linam'; 'Andrew Ward'; Jenny Droscher; 'Simon Winlock'
Subject: FW: Question on utility relocation, SH-100 Arkansas River bridge replacement project
Importance: Normal
Attachments:
ODOT Questions.pdf;

Andrea,
Regarding your inquiry on assistance/loans for utility relocation, it is my understanding that ODOT is not in the position to offer financial assistance in the form of a loan.

Thank you,

Scott Stegmann
P: 405.835.2836 | **C:** 405.361.4792



From: Scott Stegmann
Sent: Monday, March 01, 2021 10:54 AM
To: ecoga@crosstel.net
Cc: Brian Linam <BLINAM@ODOT.ORG>; Andrew Ward <WWard@odot.org>; Jenny Droscher <JDroscher@odot.org>
Subject: Question on utility relocation, SH-100 Arkansas River bridge replacement project

Hi Andrea,
We are looking into your question on utility relocation for the SH-100 Arkansas River bridge project and will get back with you as soon as we have an answer.

Thanks,

Scott Stegmann
P: 405.835.2836 | **C:** 405.361.4792



From: Jenny Droscher <JDroscher@odot.org>
Sent: Friday, February 26, 2021 3:58 PM
To: Scott Stegmann <sstegmann@cpyi.com>
Cc: ODOTWeb-environment <environment@odot.org>; Brian Linam <BLINAM@ODOT.ORG>; Andrew Ward <WWard@odot.org>
Subject: Fw: [EXTERNAL] Comment Form

Please see the attached question from Andrea Goodman below for JP 32100(04). Thank you.

Jenny Droscher
Public Involvement Officer
ODOT Cultural Resources Program
ODOT Environmental Programs Division
405-246-6975



From: Andrea Goodman <ecoga@crosstel.net>
Sent: Friday, February 26, 2021 2:19 PM
To: ODOTWeb-environment <environment@odot.org>
Subject: [EXTERNAL] Comment Form

Attached is the comment form for the SH-100 Bridge over Arkansas River (Muskogee/Sequoyah Counties; JP 32100(04)

Andrea Goodman – Office Manager
East Central Oklahoma Gas Authority
P.O. Box 776
Gore, OK 74435
Phone: 918-489-5592
Fax: 918-489-2641
Email: ecoga@crosstel.net

Archived: Friday, March 19, 2021 3:25:53 PM
From: Scott Stegmann
To: kimbra@muskogeeport.com
Cc: Chris Wallace; Chad Edward Grinsteiner; Brian Linam; ssundaram@odot.org; Andrew Ward; Leslie Novotny
Subject: FW: FW: Solicitation letter for Oklahoma Department of Transportation proposed Federal action on SH-100 over the Arkansas River (MKARNS), Muskogee Co., ODOT JP 32100(04)
Importance: Normal
Attachments:
SH100-MKARNS Pier Placement.pdf;

Kimbra,
Please see the project engineer's response below and the attached plan sheet showing pier locations. Let us know if you need any additional information.

Thanks,

Scott Stegmann
P: 405.835.2836

From: Chad Edward Grinsteiner <chad@weainc.com>
Sent: Thursday, February 18, 2021 3:37 PM
To: Scott Stegmann <sstegmann@cpyi.com>; Brian Linam <BLINAM@ODOT.ORG>
Cc: Chris Wallace <CWALLACE@ODOT.ORG>; Andrew Ward <WWard@odot.org>; ssundaram@odot.org; Leslie Novotny <LNOVOTNY@ODOT.ORG>
Subject: Re: FW: Solicitation letter for Oklahoma Department of Transportation proposed Federal action on SH-100 over the Arkansas River (MKARNS), Muskogee Co., ODOT JP 32100(04)

All,

The new piers will be placed 38' west of the existing pier on the west side of the channel and 38' east of the existing pier on the east side of the channel. The available navigational width will continue to be controlled by the existing pier protection, which will remain unchanged.

Attached is a current plan drawing illustrating pier placement relative to the navigation channel.

Chad Edward Grinsteiner
White Engineering Associates, Inc.
5104 N. Francis Avenue, Suite 102
Oklahoma City, Oklahoma 73118
405.208.8700

On 2/18/2021 2:59 PM, Scott Stegmann wrote:

> Chad and Brian,
> Please see Kimbra's request from the Port of Muskogee about pier placement for the SH-100 bridge over MKARNS project. Could you assist with her request?
>
> Thanks,
>
> Scott Stegmann
> **P:** 405.835.2836
>
> ---
>
> **From:** Kimbra Scott <kimbra@muskogeeport.com>
> **Sent:** Thursday, February 18, 2021 2:55 PM
> **To:** Scott Stegmann <sstegmann@cpyi.com>
> **Subject:** RE: Solicitation letter for Oklahoma Department of Transportation proposed Federal action on SH-100 over the Arkansas River (MKARNS), Muskogee Co., ODOT JP 32100(04)
>
> Thank you, Scott! Is it possible to have a copy of pier placement for this bridge? I'm concerned about navigational issues.

Thanks in advance.

Best,

Kimbra

From: Scott Stegmann <sstegmann@cpyi.com>
Sent: Friday, February 12, 2021 2:25 PM
To: Kimbra Scott <kimbra@muskogeeport.com>
Subject: Solicitation letter for Oklahoma Department of Transportation proposed Federal action on SH-100 over the Arkansas River (MKARNS), Muskogee Co., ODOT JP 32100(04)

Dear Ms. Scott,
Please see the attached correspondence for review by your office.

Thank you,

Scott Stegmann
Associate

2000 N. Classen Blvd., Suite 1410
Oklahoma City, OK 73106
P: 405.835.2836
sstegmann@cpyi.com | www.cpyi.com

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OKLAHOMA Transportation

Environmental Programs Division Office 405 521-3050

Documented Categorical Exclusion Justification Request

Date	**October 28, 2021**	Project No.	**J3-2100(004)PM**
County	**Muskogee**	State Job Piece No.	**32100(04)**
NEPA Project Manager	**Andrew Ward**	Phone Number	**405-521-2325**
ODOT Field Division	**1**	Bridge NBI No. *(County & State Projects)* & Location No. *(County Projects Only)*	**17611**
Project Description from JPINFO	**SH-100 over Arkansas River at the Muskogee/Sequoyah County line**		

Existing Conditions, Logical Termini, and Prior Planning

The existing SH-100 bridge (NBI# 17611) has a clear roadway width of 28 ft. consisting of two 11 ft. wide driving lanes and 3 ft. wide outside shoulders. The bridge has a sufficiency rating of 66.7 and is substandard width. The bridge is identified as a type listed in the ACHP Program Comment for post-1945 concrete and steel bridges and was not documented. The 2020 Annual Average Daily Traffic (AADT) is 3,700 vehicles per day (vpd) with a future 20-year AADT (204) of 5,000 vpd. This project is in the Department's Current 8 Year Construction Program. The project limits extend approximately 500' east and west of the existing bridge to encompass the structure and approaches.

Purpose & Need

The existing bridge was constructed in 1969 and has reached the end of its intended design life. The project is needed to correct the deteriorating structural conditions and substandard functional aspects of the existing bridge.

The purpose of the project is to preserve transportation continuity by providing a safe crossing over the Arkansas River.

Alternatives Considered, Proposed Improvement, Public Involvement Summary, Environmental and Relocation Summary

Public Involvement

A virtual public open house for the project was held online between February 12 and February 26, 2021. Notice of the virtual public open house was sent by regular mail to elected officials, property owners and utility owners in the study area. The mailing included a pamphlet with an overview of the project and background information, as well as a comment form and self-addressed stamped envelope. The pamphlets were also delivered using Every Door Direct Mail service to 1,609 addresses covering the areas surrounding the towns of Webbers Falls in Muskogee County and Gore in Sequoyah County.

Solicitation letters including notification of the virtual open house were mailed to the appropriate state and federal resource agencies and Native American Tribes.

Ten people signed in on the website; however, sign in was not required. According to the website analytics, 318 unique visitors viewed the website over the 15-day period. A total of 20 written comments/questions were received during the virtual public open house, including one agency comment, nine comments submitted via the website and eight mailed written comments and two emailed comments that were duplicates of two mailed comments. The majority of the public comments were in support of the project most commonly citing safety as an improvement. The concerns focused on how access and travel patterns would be impacted during construction, namely community impacts since Webbers Falls does not have many of the services that are found in Gore (grocery stores, healthcare services, etc). Several commentors expressed concern that the construction phase would be too long.

The Oklahoma Department of Environmental Quality (ODEQ) determined that no adverse environmental impacts under their jurisdiction are anticipated. A complete summary of the virtual open house is provided in the Public Involvement Summary attached to this document.

Proposed Improvements

The proposed improvement consists of replacing the existing bridge with a 40 ft. clear roadway bridge on the existing alignment. The roadway will consist of two 12 ft. wide driving lanes and 8 ft. wide outside shoulders. Modern 42" tall railing will be incorporated to increase safety. The overall length of the replacement bridge will be similar to the existing, but the number of spans will be reduced using longer spans and fewer piers in the river. The vertical alignment will be lowered by reducing the bridge height and optimizing the clearance of the bridge over the navigation channel. The existing utilities will be relocated off and away from the current bridge prior to construction. No additional right-of-way is required. The roadway will be closed during construction. The estimated closure duration is 24 months; incentives will be utilized to reduce the closure time. The signed detour is approximately 15 miles and will utilize I-40 to SH-64.

Environmental Studies and Findings

ODOT completed a Community Impact Assessment for this project; a relocation plan was not needed. The bridge over the Arkansas River would be closed during the construction of the project, which is expected to take two years. The bridge connects two towns: Webbers Falls in Muskogee County and Gore in Sequoyah County. As a result of the bridge closure, people would have to take a detour route which follows SH-100 south to I-40 then north on SH-10 and US-64. Total travel time between Webbers Falls and Gore using the alternative route on I-40 is estimated at 15 minutes (10 miles one-way), which is an additional 10 minutes compared to travel time using the SH-100 bridge.

Motorists have a viable alternative route to/from Webbers Falls/Gore using I-40 during the construction of the proposed project. Motorists would retain bridge functionality after completion of the project.

Two readily identifiable groups of minority persons exist within the study area in the town of Gore. Both groups reside in census tract 302.02 in Sequoyah County. One of the groups consists of census blocks 2079 (minority population: 20) and 2108 (minority population: 22) in block group 2 and the other consists of blocks 3052 (minority population: 30), 3063 (minority population: 20) and 3081 (minority population: 35) in block group 3 and three blocks in block group 2 with total minority populations that are heavily composed by American Indians and Alaskan Natives: 2092 (80% American Indian and Alaskan Native), 2107 (100% American Indian and Alaskan Native), 2109 (91% American Indian and Alaskan Native).

American Indian and Alaskan Natives compose the largest individual minority groups in the readily identifiable groups. There are indications that people with disabilities live in the study area, as evidenced by ramps on homes in the study area. Other vulnerable populations live in the study area, such as elderly populations and children.

A few public comments suggest that people walk across the bridge to Gore to access facilities and services, such as grocery stores, health services, and places of employment. During construction, these transportation methods would not be available, and existing raised shoulders that are used by pedestrians would not be replaced by a sidewalk. There would be no pedestrian access during construction and post-construction; it is assumed those who currently use the bridge would likely resume using it at their own risk once the project is complete. Census data from the area indicates that a very low percentage (1.0 - 2.0%) of people walk or bike to their place of employment.

Community cohesion would be altered between the two towns during construction of this project; however, community cohesion within each town would not be affected. The towns would temporarily not have direct access to one another. Webbers Falls would not have convenient direct access for all modes of travel to services and facilities found in Gore, including a full-service grocery store, health services, and places of employment during the construction of the project. There are no full-service grocery stores or health services within Webbers Falls, but there is a convenience store (Love's Truck Stop), which has basic grocery items, located at the intersection of SH-100 and I-40, approximately 2 miles south of town. However, a detour route using I-40 would maintain access between the two communities but would add approximately 10 minutes of driving time one-way. Based on comments received during the public meeting, there are people who walk across the existing bridge. However, what appears to be (and is used as) a sidewalk is functionally a shoulder. The proposed project does not include bike or pedestrian facilities. It is possible that some Webbers Falls residents may travel to the nearby communities of Warner or Vian for services and facilities instead of Gore. It worth noting that both communities are located in rural eastern Oklahoma, and residents are accustomed to driving to neighboring communities, sometimes as far as Checotah, OK (25 miles west), or Sallisaw, OK (25 miles east) for more specialized or full services. Access and community cohesion would be restored after completion of the proposed project.

Temporary access and travel pattern changes are anticipated to affect both EJ and non-EJ communities since everyone would have to utilize the detour to reach their destinations during the construction phase of the project. However, it is likely that EJ populations would be affected by these impacts to a greater extent if they are low-income individuals. One of the public commenters who referred to themselves as low-income mentioned that the cost of gas for transportation during the construction period would be a hardship. Low-income EJ populations may find it more difficult to pay for additional gas to access amenities than someone who is not low-income. During construction only, the project would likely have a disproportionate effect on particularly the low-income EJ population in Gore due to increased travel miles and time for travel to Webbers Falls or other destinations usually accessed via the SH-100 bridge. Additionally, all block groups in the study area show a presence of households in poverty. There could also be disproportionate impacts to low-income populations in Webbers Falls whose primary or only mode of travel is cycling or walking as they would not be able to cycle or walk safely to Gore or other destinations accessed via the SH-100 bridge while it is closed. Impacts would be temporary while the bridge is closed during construction.

It is likely that community cohesion in the study area would temporarily suffer as a result of the proposed project due to extended travel times between Webbers Falls and Gore, particularly for residents of Webbers Falls, who rely on services such as healthcare and grocery stores in Gore. It is possible that people within the community would participate less in activities across the two towns.

The impacts to the low-income EJ population would be disproportionate, but not disproportionately high because they would be temporary (during construction). Further, the readily identifiable minority populations and the identified low-income population are located in Gore and would not lose access to essential goods and services in the town.

No mitigation is proposed, or likely feasible; however, incentives for early completion will be

implemented to help alleviate the burden the additional travel time would have on low-income populations. Several design options are being discussed amongst ODOT and external agencies to determine the feasibility of decreasing the bridge's closure time. All measures to lessen the closure time will be implemented to the agency's ability.

A Virtual Public Open House was hosted online for a 15-day period to provide project information, a project presentation, project maps, and offer the public an opportunity to comment. Notification packages were sent to properties within the study area, state and federal resource agencies, and Native American Tribes. Every door direct mail service was used to target a broader audience (1609 mailings) within both counties. Due to the low number of LEP persons living within the study area block groups (1%), assistance in a language other than English was not requested or required.

Based on the analysis above, the proposed project will not cause disproportionately high and adverse effects on any minority or low-income populations in accordance with the provisions of E.O. 12898 and FHWA Order 6640.23. No further Environmental Justice analysis is required.

ODOT completed Section 106 consultation and determined the proposed project will have no effect on historic properties. The State Historic Preservation Office and the State Archaeologist concurred with the assessment and determination.

Did the project have public involvement *(Check the applicable items and include public involvement summary and supporting documents in the appendix)*

X	Property Owner Notification			Road Closure Letter		**X**	Public/Stakeholder Meeting
	Legal Notice/Website Posting			Small City Letter			None

IMPORTANT: ATTACH THE FOLLOWING:

1. ***STUDY FOOTPRINT OR PLANS***
2. ***THE PROJECT INITIATION REPORT, LOCAL GOVERNMENT NEPA CHECKLIST OR OTHER DOCUMENTS OUTLINING THE PROJECT SCOPE***

ATTACHMENTS (Check all that apply):

☒ NEPA Study Footprint and Plans

☒ Location Map

☒ Other Early Coordination, Tribal and Federal Properties, Studies and Coordination, Public Involvement, Initiation and Inspection Reports/NEPA Submittal Checklist, NEPA Oracle Status Report, QA/QC Checklist

Reasons DCE format is being proposed rather than EA.		
Description/Question	**Yes**	**No**
1. Based on prior planning studies and public involvement – this project has no or little substantive controversy	**X**	
2. This project has no new R/W or minor R/W adjacent to the existing facility and no or few residential/commercial relocations.	**X**	
3. The project has no potentially significant social, economic, environmental impacts identified by studies or agency solicitation	**X**	

Requester's Signatures

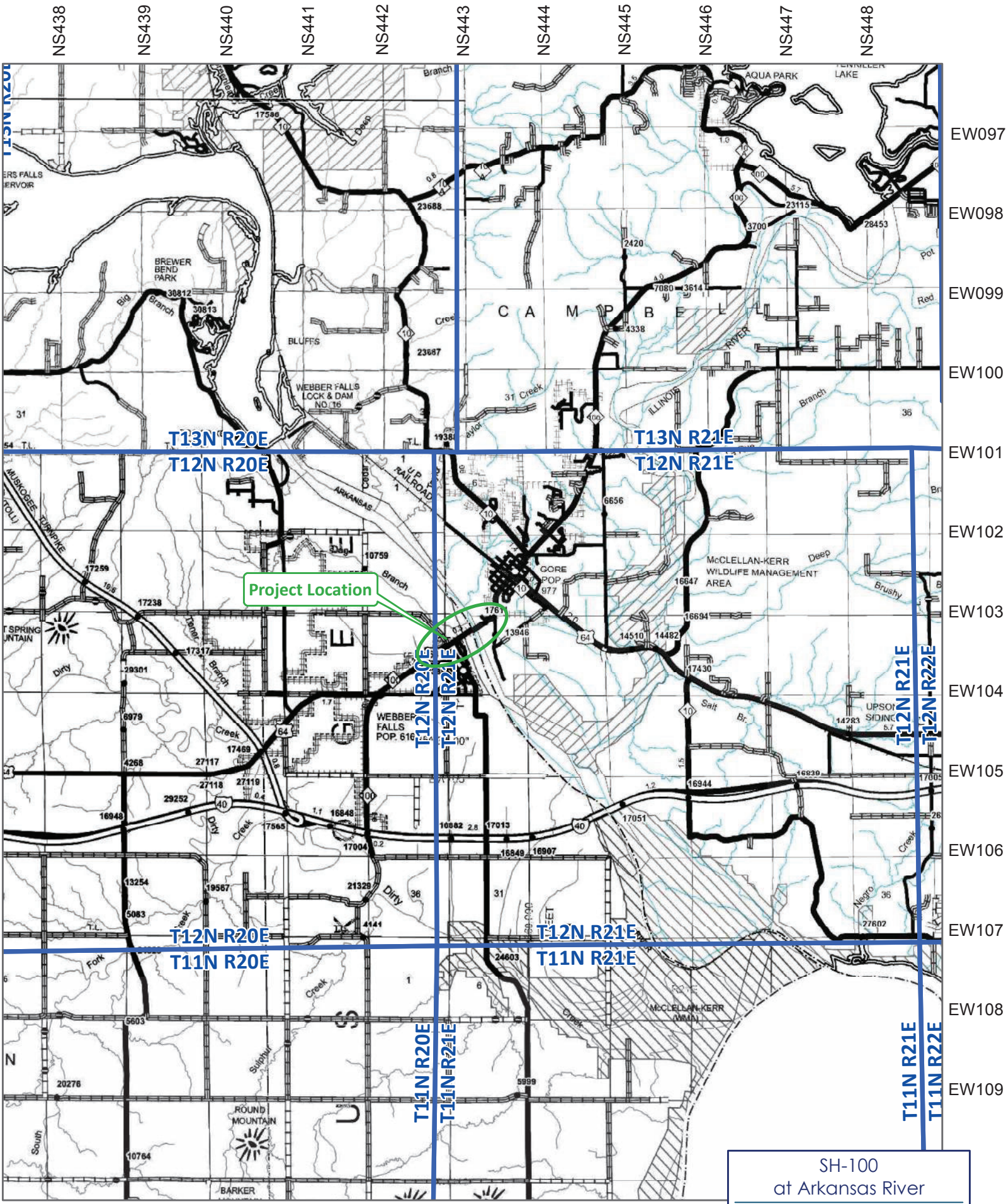
Kelly Saladis, CP&Y, Inc.	**10/26/2021**
Environmental Consultant Project Manager & Firm Name (If Applicable)	Date
Andrew Ward William Ward	Digitally signed by William Ward Date: 2021.11.05 17:50:55 -05'00'
ODOT Environmental Project Manager	Date
Amber McIntire Amber McIntyre	Digitally signed by Amber McIntyre Date: 2021.11.08 09:51:32 -06'00'
ODOT Environmental Programs Interim Assistant Division Manager	Date
Joe Brutsche Joe Brutsché	Digitally signed by Joe Brutsché Date: 2021.11.08 09:12:06 -06'00'
ODOT Environmental Programs Interim Division Manager	Date

CONCLUSION:

Based on the 2019 ODOT/FHWA Programmatic Agreement for Categorical Exclusion processing and information provided, FHWA concurs that this project may be processed as a Documented CE (DCE). Upon completion of all studies and coordination, a draft DCE document will be submitted to FHWA for review and approval.		**YES**
		NO

Special Requirements from FHWA	
Ralph Nguyen Digitally signed by Ralph Nguyen Date: 2021.11.23 14:38:51 -06'00'	
FHWA Representative	Date

Attachments: Project Information listed above


NS438
NS439
NS440
NS441
NS442
NS443
NS444
NS445
NS446
NS447
NS448
EW097
EW098
EW099
EW100
EW101
EW102
EW103
EW104
EW105
EW106
EW107
EW108
EW109
T13N R20E
T12N R20E
T13N R21E
T12N R21E
T12N R22E
T11N R20E
T11N R21E
T11N R22E
Project Location
AQUA PARK
BREWER BEND PARK
BLUFFS
WEBBER FALLS LOCK & DAM NO. 16
C A M P B E L L
ILLINOIS RIVER
GORE POP. 977
McCLELLAN-KERR WILDLIFE MANAGEMENT AREA
WEBBER FALLS POP. 616
ROUND MOUNTAIN
BARKER
MUSKOGEE TURNPIKE (TOLL)
ARKANSAS
Project Location
Township & Range Boundary
Basemap: ODOT
Miles
0
0.75
1.5
1 inch = 1.5 miles
SH-100
at Arkansas River
J/P 32100(04)
Muskogee County
ODOT
Project Location Map

Other Special Bridge Inspection Report

NBI Bridge No.: 17611

Local ID: -1

Route S.H. 100 over ARKANSAS RIVER
County,



Prepared for:

Oklahoma Department of Transportation

Field Division 1



Inspection Date:

7/17/2018

Report Prepared By:

BURGESS & NIPLE, INC.

5085 Reed Rd.
Columbus, Ohio 43220
614-459-2050

BURGESS & NIPLE
Engineers ■ Surveyors ■ Planners

Oklahoma Dept. of Transportation - Bridge Inspection Report

NBI No.:	Structure No.:	Local ID:	Suff. Rating:	
17611	5159 0300 X	-1	66.70	ND

IDENTIFICATION

Bridge Description:
4(100ft.CONT.)(207ft.-334ft.
-207ft.CONT.)3(100ft.CONT.)4(100ft.CONT.)75ft. PLATE GIRDER S

1. State: Oklahoma
2. Division: Division 1
3. County: MUSKOGEE
4. City: Unknown
Admin Area: Unknown
5a. On/Under: Route On Structure
5b. Kind of Hwy: State Hwy
5c. Lvl of Srvc: Mainline
5d. Route No.: 00100
5e. Dir. Sufx: N/A (NBI)

7. Facility Carried : S.H. 100
6. Feat. Intersect: ARKANSAS RIVER
9. Location: SEQUOYAH C/L
11. Mile Post: 2.999 mi
13. LRS Inv. / Sub Rte: -1 / -1
16. Latitude: 35° 31' 14.59"
17. Longitude: 095° 07' 24.89"
98. Border Brdg: Unknown (P)
% Responsible: 0.00
99. Border Brdg #: Unknown

INSPECTION

Type	Insp. Req.	Insp. Done	Freq.	Insp. Date	Next Insp.
NBI:		0	24 months	8/9/2017	08/09/2019
FC:	Y	0	24 months	8/9/2017	8/9/2019
UW:	Y	0	60 months	10/8/2017	10/8/2022
OS:	Y	1	24 months	7/17/2018	8/9/2020

CLASSIFICATION

12.Base Hwy Net.: Not on Base Network
20. Toll Facility: On free road
21. Custodian: State
22. Owner: State
26. Function Class: 07 Rural Mjr Collecto
37. Historical Sig.: Not eligible for NRHP
100. Def. Hwy: Not a STRAHNET hwy

101. Parallel Str.: No || bridge exists
102. Traffic Dir.: 2-way traffic
103. Temp. Str.: Not Applicable (P)
104. Hwy System: Not on NHS
105. Fed Land Hwy: IRR-Indian Res Rd
110. Defense Hwy: Not a STRAHNET hwy
112. NBIS Length: Long Enough

STRUCTURE TYPE AND MATERIALS

43a/b. Main Span: Steel Cont. / Girder-Floorbeam
44a/b. Appr. Span: Steel / Stringer/Girder
45. # of Main Spans: 3
46. # of Appr. Spans: 11
107. Deck Type: Concrete-Cast-in-Place
108a. Wearing Surface: Epoxy Overlay
108b. Membrane: None
108c. Deck protection: Unknown

CONDITION

58.Deck: 6 Satisfactory
62.Culvert: N/A (NBI)
59.Sup.: 5 Fair
61.Chan./Chan. Prot.: 6 Bank Slumping
60.Sub: 6 Satisfactory

Flowline Notes

There has been general scour ranging from 5-ft to 15-ft, west of Pier 7
since construction. The top of the footing at Pier 5 and Pier 6 is exposed;

AGE AND SERVICE

19. Detour Length: 9.9 mi
27. Year Built: 1969
28a/b. Lanes on/und: 2 / 0
29. ADT: 3,300
30. Year of ADT: 2016
42a/b. Type of Svc on/und: Highway / Waterway

106. Year Reconst.:
109. Truck ADT: 15%

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
Date Rated: 11/24/2003
63.Op / 65.Inv. Rating Meth.: 1 LF Load Factor / 1 LF Load Factor

	H	HS	3-3	EV3	SHV
64. Operating Rating (tons):	33.29	54.45	75.84	-1.00	0.00
66. Inventory Rating (tons):	19.95	32.63	45.53	-1.00	

GEOMETRIC DATA

10. Vert. Clearance: 99.99 ft
32. Appr Rwy Width: 44.00 ft
33. Median: No median
34. Skew: 0.00°
35. Struct. Flared: No flare
47Horizontal Clr: 28.00 ft
48. Length Max Span: 333.99 ft
49. Struct. Length: 1,928.15 ft

50a. Curb/Sdwlk Width L: 1.50 ft
50b. Curb/Sdwlk Width R: 4.00 ft
51. Width Curb to Curb: 28.00 ft
52. Width Out to Out: 35.30 ft
Deck Area: 68,060.89 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: 0.00 ft
56. Min.Lat.Underclr. L: 0.00 ft

APPRAISAL

36a. Brdg Rail: 0 Substandard
36b. Transition: 1 Meets Standards
36c. Appr. Rail: 1 Meets Standards
36d. Appr.Rail Ends: 1 Meets Standarc
67. Str Evaluation: 5 Above Min Tolera

68. Deck Geom.: 4 Tolerable
69. Vert./Horiz. Undclr: Not applicable (NB
71. Waterway Adeq: 8 Equal Desirable
72. Appr. Alignment: 6 Equal Min Criteria
113. Scour Critical: 8 Stable Above Footin

PROPOSED IMPROVEMENTS

94. Bridge Cost: $11,530,195
95. Roadway Cost: $4,500,000
96. Total Cost: $16,937,565
97. Yr.of Cost Est.: 2015

75. Type of Work: 31 Repl-Load Capacity
76. Lngth of Improvement: 1,928.1 ft
114. Future ADT: 5,280
115. Yr.of Future ADT: 2036

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

OKLAHOMA ITEMS

200c. Temperature: 90
200d. Weather: Clear
201. Struc.Stl. ASTM Desig.: A-36 / -1
202. Waterprf.Membrane: -1
Date Installed: 01/01/1901
203. Type Exp. Device: Finger
_
204. Type of Railing: PTR-1 (square hand rail)
205. Material Quantity: -3.00
208a. Type of Abutment: Skeleton
b. Type of Found.: Steel Piling
209. Type of Pier/Found.: 2 / No
No Piling/Drilled Shaft
210. Foundation Elev.: 4,402.00 | 4,352.00
-1.00 | 4,400.00 | -1.00
211. Wear.Surf.Prot.Sys: None
Date Installed: 01/01/1901
213. Utilities Attached: Communication
Natural Gas | Power

214a. Posted Weight Limit: NR
b. Posted Speed Limit:
c. Narrow/1way Brdg Sign:
d. Vertical Clr. Sign: NA
Adv. Warning Sign: NA
e. Navigation Lights?: Yes
Working/Not Working: Yes
215. Overpass: STATE HIGHWAY
221. Substr.Cond.(U/W):
222. Fill Over RCB: 0
223. Appr.Slab/Rwy Cond.: 2
225. Paint Type/Ovrct: Organic Zinc(OZ-E-U) Gra
N/A
226. Date Painted: 2010
227. Paint Color: Gray
233. Deck Forming:
238. School Bus Rte.: Current & Desired route
240. Appr. Rwy Type.: Concrete
243. Grdr Spacing/No.: /

244. Span Lengths:
245. Girder Depth:
246a. Type of Ovelay: Chipseal
b. Overlay Thickness: 0.10
c. Overlay Date: 05/01/2014
d. Ovly Depth Changed >1": N
247. Protective Systems:

248. # Field Splices w/ Corrosion: 3
249. Scour Crit. POA Exists?: _
250. Headwall:
254. Thru Truss Type:
257a. OkiePROS Truck Routing: Yes
258. Plans w/Found.in ODOT File:
259. Scour Eval. in ODOT File:
263. Interchange at Intersection: No
264. Interstate Milepoint: -1.00

Oklahoma Dept. of Transportation - Bridge Inspection Report

NBI No.:	Structure No.:	Local ID:	Suff. Rating:	
17611	5159 0300 X	-1	66.70	ND

Inspection Date: 7/17/18 Reported By: Dale Poorman

Invoice No.: 831881 Inspected With:

BRIDGE NOTES:

15 span structure consisting of: Spans 1-4 100-foot long continuous steel multi girders spans; Spans 5-7 three span continuous steel twin girders (207 feet, 334 feet, 207 feet); Spans 8-10 three 100-foot long continuous steel multi girders spans; Spans 11-14 four 100-foot long continuous steel multi girders spans; Span 15 100-foot long simple steel multi girder span.
OS Inspection Items Include:
Girder web cracks which have not been arrested and cracks with drilled hole retrofits; Crack on exterior face of beam 1 in span 15, near pier 14; Floor beam 0 lower connection to girder 2, span 6; Cracked welds between lower lateral bracing gusset plates and bottom angles; Kinks and bends in floor beams adjacent to the piers; recently replaced floor beams and the welded connections to the girders and the stringers; Welds at recently reattached floor beam 0 lower chord connection to girder in span 7; Loose stringer bolts at floor beam 3, 5, 6, 11 and 12 in span 6; Abutment movement and erosion.

INSPECTION NOTES: **7/17/18**

PX - Replace rail post anchor bolts in E most rail post along north barrier at end of east approach slab; Unclog deck scupper in span 10 near P10; Arrest girder web cracks via drilled holes that have not previously been arrested; Replace bolts in horizontal web splice in G1 at P6; Arrest crack on exterior face of G1 in span 15, near P14; Tighten loose stringer bolts at stringer to floor beam connections; Reattach FB0 lower connection to G2 in span 6. Consider bolting previously welded connection; Tighten loose bolts and replace missing bolts at FB to G connections; Replace severed LLB hanger rods and missing connection brackets; Repair cracked welds between LLB GPs and bottom angels at G2, E face of FB11 in span 6 and G2, E face of FB7 in span 5; Tighten loose anchor bolts and replace missing or bent anchor bolts at fixed bearings.
FX - Monitor: Spalls in the sidewalk of span 5, near P4 for growth and possible hazard to pedestrians; Epoxy overlay for further deterioration; Deck soffit along girders, FBs and stringers for further deterioration; Vertical offset in the P4 finger joint for changes in height; Drilled hole retrofits and paint cracks for signs of crack propagation or initiation; Surface corrosion and pack rust along the top flange of the girders and between the girder top flanges and the deck; Painted over pitting at girder webs adjacent to the top of the LLB GPs for reactivation. Remove any debris accumulation at these locations; Pack rust between girder web horizontal splices; FB welded connections; FB 0 LC connection to girder in span 7; Kinks and bents in FB; Gouges in FB 2 member U3L2 span 6; LLB connection for pack rust; E and W abut slope for further erosion and undermining; Abuts for movement towards channel; Pack rust at fixed bearings.

Channel Notes: The channel in the vicinity of the bridge has a slight bend and is well aligned with the piers. There are spur dikes on the east bank (outside of bend), approximately 450-ft, 1400-ft, and 2700-ft upstream of the bridge. There is light timber debris at several of the piers; however, there is no significant restriction to flow in the channel. Both embankments are covered with dense vegetation and appear stable. The channel bottom material at the piers consists of sand, gravel, and rock.

Underwater Inspection General Notes: There is light scaling, up to 1/8-in penetration on the upstream column and 1/16-in penetration on the downstream columns and webwalls, extending from 3-ft above the waterline to the channel bottom. Piers 5 and 6 also have light scaling, up to 1/8-in penetration, extending from 3-ft above the waterline to the channel bottom. There is light algae growth on the submerged surfaces.

ELEMENT CONDITION STATE DATA

Elem. / Env	Description	Unit	Total Qty	% 1	Qty. 1	% 2	Qty. 2	% 3	Qty. 3	% 4	Qty. 4
12 / 1	Re Concrete Deck	sq.ft	53,984.00	0%	0.00	100%	53,984.00	0%	0.00	0%	0.00
	PX – Deck scupper in span 10 near pier 10 is clogged. FX – 2014 epoxy grit overlay is failing in patches throughout deck, mostly along the wheel lines. Longitudinal cracks exist along deck surface, mostly in wheel lines; Transverse cracks exist on surface randomly along full length of bridge; Debris is accumulating along side of deck. This is not currently problematic.										
510 / 1	Wearing Surfaces	sq.ft	53,984.00	75%	40,488.00	25%	13,496.00	0%	0.00	0%	0.00
	FX – 2014 epoxy grit overlay is failing in patches throughout deck, mostly along wheel lines.										
107 / 1	Steel Opn Girder/Beam	ft	4,780.00	100%	3,920.00	0%	478.00	0%	382.00	0%	0.00
	PX - S5 G1 near FB5 5/8in crack; S6 G2 near midspan nav light conduit cracked; Missing bolts at G1 at P6 in horizontal web splice and G2 S5 near FB5; G1 S15 at P14 1 3/4in crack w/ 19in paint crack in stiffener fillet weld. FX - S5 G2 near FB 5 3/8in paint crack; S6 G1 near FB3 3/4in crack arrested w/ drilled holes; S7 G1 near FB4 paint cracks; S7 G2 near FB4 two vertical cracks arrested w/ drilled holes; Surface corrosion w/ 1/8in pack rust between top flange and deck; Painted over pitting in grider webs adj to LLB GP's; Pack rust between horizontal splice plates of girders up to 1/4in; Pack rust up to 1in typ between girder cross frames and vertical stiffeners. Active corrosion at girder horizontal splices at bearing stiffeners over piers 5 and 6; Cracks at several long. stiffener butt welds on exterior faces of twin girders. See FC for full location list; Pack rust and SL up to 3/16in in girder top flanges at several of deck joints.										
515 / 1	Steel Protective Coating	sq.ft	140,000.00	100%	140,000.00	0%	0.00	0%	0.00	0%	0.00
	Bridge was repainted in 2010. Areas of previous corrosion and pack rust are reactivating in many locations especially at gusset plates near expansion joints. Pack rust is active in many girder horizontal web splices. Previous PX of laminating corrosion and pack rust at lower lateral bracing gusset plates were repaired prior to 2014 OS although corrosion is reactivating in isolated locations.										
113 / 1	Steel Stringer	ft	1,914.00	100%	1,852.00	0%	50.00	0%	12.00	0%	0.00
	PX - Loose stringer connection bolts exists between the connection angles and the floor beam webs at various locations. A portion of stringer 3, at floor beam 0, span 7 has been removed and replaced via welds due to previous corrosion hole.										

NBI No.:	Structure No.:	Local ID:	Suff. Rating:	ND
17611	5159 0300 X	-1	66.70	

152 / 1	Steel Floor Beam	ft	891.00	100%	659.00	0%	200.00	0%	32.00	0%	0.00
	PX - FB 0 S 6 at P5 at G2 crack full width of horizontal weld along bottom of truss floor beam gusset plate. Vertical weld in this location is cracked full height (3 1/2 in). GP has been reinforced by a 3in by 1/2in diagonal strut which is now bowed out of plane 3/16in; Loose and misaligned bolts and blind holes in several locations. See FC report for full list. FX - Floor Beam 3 in Span 5, Floor Beam 0 above Pier 5 and Floor Beam 0 above Pier 6 were replaced during recent rehabilitation work and reattached via welded connections of marginal quality; Several kinks and bends were noted in floor beam members and gusset plates; Small gauges were noted in U3L2 of floor beam 2, in span 6. Oversized holes in several locations, no signs of distress; Several FB exhibit surface corrosion along deck top flange w/ evidence of deck pumping.											
205 / 1	Re Conc Column	each	26.00	100%	23.00	0%	0.00	0%	3.00	0%	0.00
	Top of the pier 5 column base on west face of pier exhibits multiple exposed and corroding reinforcing steel ends. Pier 5 also exhibits sporadic hairline shrinkage cracks and isolated areas of small delaminations; Piers generally exhibit no significant deficiencies with minor rust staining at bearings.											
215 / 1	Re Conc Abutment	ft	80.00	100%	0.00	0%	80.00	0%	0.00	0%	0.00
	FX – East abutment slope has new fill with small concrete riprap up to abutment breastwall. Vines and vegetation have grown over installed riprap and it is no longer visible. No erosion was observed. Bottom of abutment breastwall is already exposed due to prior erosion although no piles could be seen at time of inspection. Bottom of west abutment breastwall is exposed up to 2 inches high and 4 feet wide at both ends; Both abutments appear to be moving towards channel. Both abutments are supported on vertical piles which are susceptible to movement from soil pressure acting behind abutments. For this inspection, at west abutment difference in measurement between abutment backwall and girder flange is 2 3/8 inches for girders 3 and 4 (8 1/8 in difference at bottom and 5 3/4 in at top). Movement most likely is responsible for excessive bearing rotations observed at piers 4,7 and 10. Minor shallow spalls with no exposed reinforcing steel are present in southwest wingwall.											
234 / 1	Re Conc Pier Cap	ft	594.00	100%	581.00	0%	13.00	0%	0.00	0%	0.00
	Spalling and scaling concrete with exposed corroded reinforcing steel exists in bridge seat area on piers 4 and 14. At pier 4, scaling concrete exists around the bearing for girder 1 of span 5.											
310 / 1	Elastomeric Bearing	each	12.00	100%	12.00	0%	0.00	0%	0.00	0%	0.00
	Elastomeric bearings installed at the following locations: Span 4 at Pier 4, Span 8 at Pier 7, Span 11 at Pier 10. No significant dificiencies noted at the time of the inspection.											
311 / 1	Moveable Bearing	each	30.00	100%	0.00	0%	30.00	0%	0.00	0%	0.00
	Rocker bearings typ. have rust staining and active laminating corrosion on bearing components and masonry plate.											
313 / 1	Fixed Bearing	each	30.00	100%	0.00	0%	30.00	0%	0.00	0%	0.00
	PX – Fixed bearing 1 at pier 3 anchor bolts are bent and exhibit fretting corrosion. Fixed bearing 1 at pier 5 has several different length anchor bolts and the bolts are typically not fastened tightly. Fixed bearing under girder 1, pier 9 is missing one anchor bolt at the southwest corner of the bearing. All of the other bolts are negatively threaded at this location. FX - The fixed bearings have surface corrosion and many of the bearing anchor bolts have loose nuts.											
321 / 1	Re Conc Approach Slab	sq.ft	2.00	100%	1.00	0%	1.00	0%	0.00	0%	0.00
	West approach contains recently poured concrete approach slabs that are in good condition. East approach is in similar condition with exception to 1/16-inch max width longitudinal cracking in wheel lines; A spall measuring 2 feet by 6 inches exists along east abutment joint.											
330 / 1	Metal Bridge Railing	ft	3,856.00	100%	3,656.00	0%	200.00	0%	0.00	0%	0.00
	PX – The eastern most rail post along the north barrier at the end of the east approach slab is missing all four anchor bolts. No other deficiencies noted.											
919 / 1	St.(Rail) Prot. Coat	(SF)	9,260.00	100%	9,260.00	0%	0.00	0%	0.00	0%	0.00
	No deficiencies noted.											
331 / 1	Re Conc Bridge Railing	ft	3,856.00	100%	3,856.00	0%	0.00	0%	0.00	0%	0.00
	No significant deficiencies noted.											
859 / 1	Soffit	(EA)	1.00	100%	1.00	0%	0.00	0%	0.00	0%	0.00
	FX – Shallow spalls are common along girders, floor beam and stringer top flanges. Isolated locations have larger spalls with exposed corroding reinforcing steel, most likely due to pack rust between the top flange and the deck. See details on pack rust in the Super Structure Section. 1/4-inch wide cracks exist along the stringer deck haunch at locations in span 6 where stringers are not continuous over floor beam members; Transverse cracking with efflorescence is common and sporadic throughout but are heaviest and typically spaced at 5 feet within three floor beams of the piers. A light density of shrinkage and hairlinecracking is common throughout.											
865 / 1	St.Open Gird End(5Ft	(LF)	180.00	100%	140.00	0%	40.00	0%	0.00	0%	0.00
	Active corrosion was noted at the girder horizontal web splices at the bearing stiffeners over piers 5 and 6. Section loss up to 3/16-inch deep exists in the girder top flanges at several of the deck joints. Pack rust between the deck and the girder top flange is also common.											
872 / 1	St.Gird Und Const.Jt	(LF)	1,236.00	100%	1,126.00	0%	100.00	0%	10.00	0%	0.00
	Pack rust and laminating corrosion has reactivated beneath joints.											
877 / 1	St. Stringer End(5Ft)	(LF)	30.00	100%	30.00	0%	0.00	0%	0.00	0%	0.00
	PX - There are loose stringer connection bolts at isolated locations. See FC report for full list.											
879 / 1	St.Strng.Un Const.Jt	(LF)	300.00	100%	300.00	0%	0.00	0%	0.00	0%	0.00
	Isolated areas of surface corrosion.											
906 / 1	Sealed Exp.Jt.(SEJ-3	(LF)	105.00	100%	105.00	0%	0.00	0%	0.00	0%	0.00
	No significant defiencies.											
907 / 1	St.Finger Jt. (SED-2	(LF)	70.00	100%	70.00	0%	0.00	0%	0.00	0%	0.00

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17611	5159 0300 X	-1	66.70	

FX – The pier 4 finger joint exhibits moderate debris impaction along with a slight vertical offset of 1/8 to 3/16 inch higher from the west assembly to the east assembly. Pier 7 finger joint is in similar condition with a few fingers exhibiting a 1/8-inch vertical offset. Elastomeric troughs at finger joints were replaced during 2014 rehab and are in good condition.

909 / 1	Pourable Fix Jt.Seal	(LF)	1,890.00	100%	1,890.00	0%	0.00	0%	0.00	0%	0.00

Poured seal control joints typically spaced at 18 feet in approach spans, and at 50 to 75 feet in main spans, 5-7, seem to have been recently installed and are generally in satisfactory condition; Poured fixed joint at E abutment is in good condition with minor debris impaction.

916 / 1	St.Bearing Assembly	(LF)	12.00	100%	12.00	0%	0.00	0%	0.00	0%	0.00

Steel bearing assemblies have been installed along with elastomeric bearings at the following locations: Span 4 at Pier 4, Span 8 at Pier 7, Span 11 at Pier 10. The anchor nuts on these bearings are loose.

956 / 1	St. Cracking/Fatigue	(SF)	1.00	100%	0.00	0%	1.00	0%	0.00	0%	0.00

PX - 5/8in long crack in Sp 5 G1 at FB5; conduit light cracked over 3/4 circumference at S6 G2; A 1 3/4-inch long crack and 19-inch long paint crack indication was observed at the exterior face of beam 1, span 15, near pier 14; FB 0, S6 over P5 at G2 vertical and horizontal weld cracked full width.
FX - Several other cracks have previously been arrested by drilling holes. Cracks in FB truss welded connections. Cracks in LLB diagonals due to pack rust, not corrected during 2014 Rehab and potential crack in stringer 1 to FB 0, span 5 welded connection.

957 / 1	Pack Rust Smart Flag	(EA)	1.00	0%	0.00	0%	0.00	100%	1.00	0%	0.00

PX - Active pack rust at LLb gusset plates.
FX - pack rust between horizonal web splices of girders and girder cross frames in multi girder spans.

958 / 1	Concrete Cracking SF	(EA)	1.00	100%	1.00	0%	0.00	0%	0.00	0%	0.00

Longitudinal cracking typ along deck surface in wheel lines; Transverse cracking in random locations throughout full length of bridge.

960 / 1	Settlement SF	(EA)	1.00	0%	0.00	100%	1.00	0%	0.00	0%	0.00

FX - Both abutments moving towards channel. West abutment difference between girder flange and backwall is 2 3/8in for G3 and 4 (8 1/8in difference at top and 5 3/4in at bottom).

963 / 1	Steel Section Loss SF	(EA)	1.00	0%	0.00	100%	1.00	0%	0.00	0%	0.00

Section loss up to 3/16in in girder top flanges at several deck joints.

969 / 1	OutOfPlane Dist./Load	(EA)	1.00	100%	1.00	0%	0.00	0%	0.00	0%	0.00

FX – Several kinks and bends were noted in the floor beam members and gusset plates in the main spans.

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Photograph 1 - Looking east at the bridge end view.

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17611	5159 0300 X		S.H. 100	ARKANSAS RIVER	7/17/2018



Photograph 2 - Looking southwest at the bridge elevation view.

NBI #	Structure #	County	Fac. Carried	Fac. Intersected	Insp. Date
17611	5159 0300 X		S.H. 100	ARKANSAS RIVER	7/17/2018



Photograph 3 - Looking east along the south bridge rail at floor beam 6, span 6. Note: ponding water on the sidewalk in span 6.

NBI #	Structure #	County	Fac. Carried	Fac. Intersected	Insp. Date
17611	5159 0300 X		S.H. 100	ARKANSAS RIVER	7/17/2018



Photograph 4 - Looking north at the underside of the south overhang at floor beam 6, span 6. Note: spalling of the deck and corrosion of girder 1 due to deck drainage ponding on the sidewalk.

NBI #	Structure #	County	Fac. Carried	Fac. Intersected	Insp. Date
17611	5159 0300 X		S.H. 100	ARKANSAS RIVER	7/17/2018



Photograph 5 - Looking north along the finger expansion joint at pier 4. Note: 5-foot section of the finger joint has been repaired with an asphalt patch.

NBI #	Structure #	County	Fac. Carried	Fac. Intersected	Insp. Date
17611	5159 0300 X		S.H. 100	ARKANSAS RIVER	7/17/2018



Photograph 6 - Looking southeast at girder 1, span 5 at the termination of the horizontal splice near floor beam 5. Note: no change to previously noted crack.

NBI #	Structure #	County	Fac. Carried	Fac. Intersected	Insp. Date
17611	5159 0300 X		S.H. 100	ARKANSAS RIVER	7/17/2018



Photograph 7 - Looking northeast at girder 2, span 5 at the termination of the horizontal splice east of floor beam 5. Note: new 1/2-inch long paint crack adjacent to the previously noted 3/8-inch long paint crack.

NBI #	Structure #	County	Fac. Carried	Fac. Intersected	Insp. Date
17611	5159 0300 X		S.H. 100	ARKANSAS RIVER	7/17/2018



Photograph 8 - Looking southwest at girder 1, span 6 at the termination of the horizontal splice near floor beam 3. Note: 3/4-inch long crack arrested with drilled hole retrofits.

NBI #	Structure #	County	Fac. Carried	Fac. Intersected	Insp. Date
17611	5159 0300 X		S.H. 100	ARKANSAS RIVER	7/17/2018



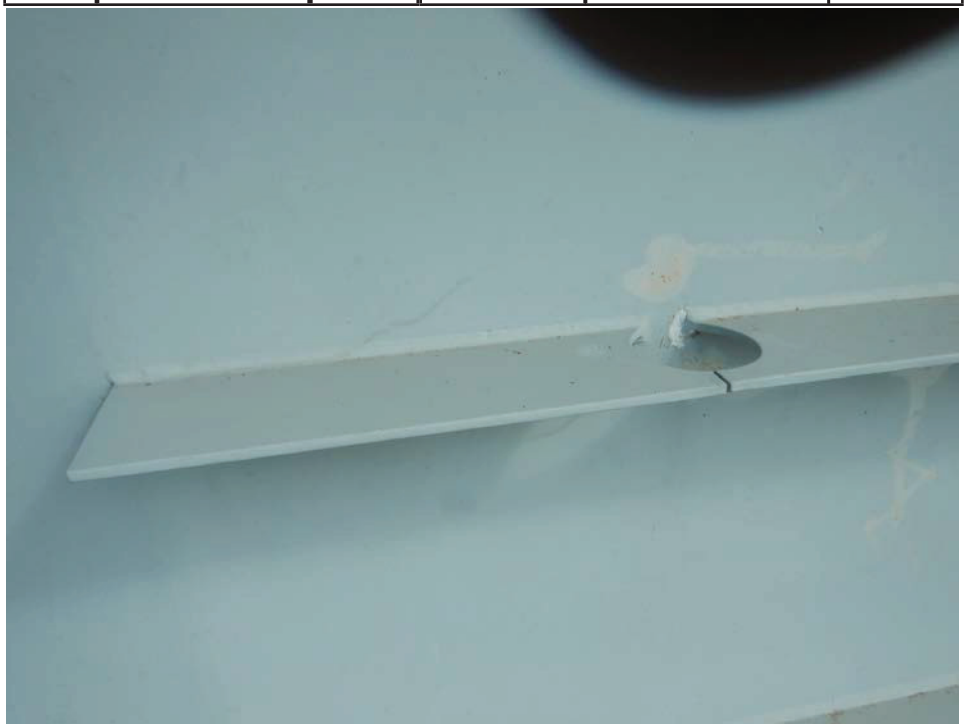
Photograph 9 - Looking southwest at girder 1, span 7 at the termination of the horizontal splice near floor beam 4. Note: paint cracks up to 1 inch long at the top plate and 1 1/8 inches long at the bottom plate. No change from 2017 inspection.

NBI #	Structure #	County	Fac. Carried	Fac. Intersected	Insp. Date
17611	5159 0300 X		S.H. 100	ARKANSAS RIVER	7/17/2018



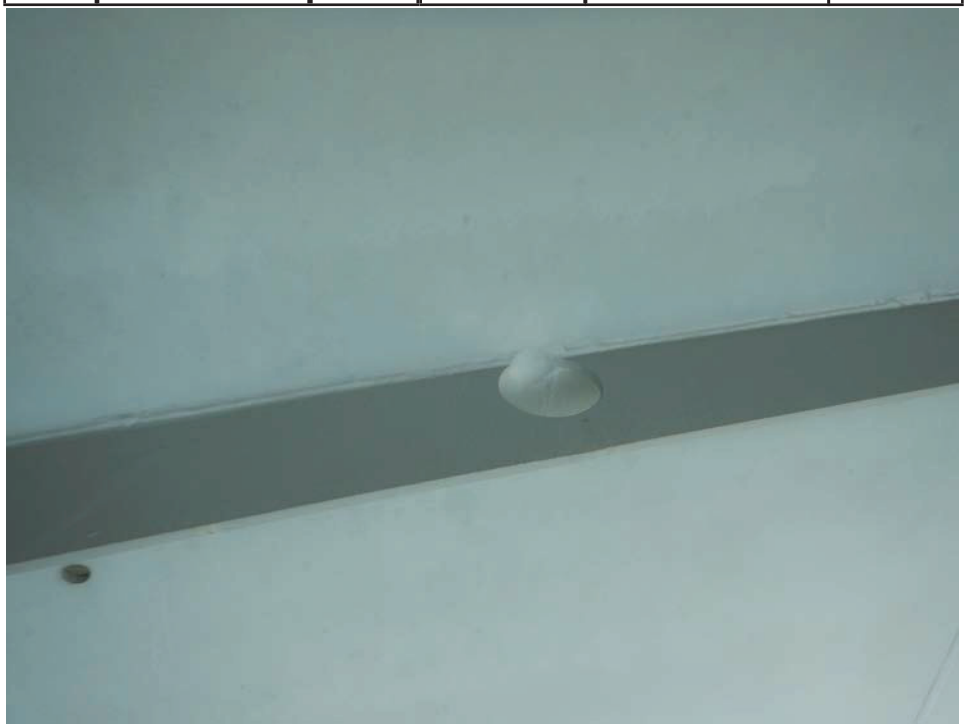
Photograph 10 - Looking northwest girder 2, span 7 at the termination of the horizontal stiffener near floor beam 4. Note: two vertical cracks arrested with drilled hole retrofits. No change from the 2017 inspection.

NBI #	Structure #	County	Fac. Carried	Fac. Intersected	Insp. Date
17611	5159 0300 X		S.H. 100	ARKANSAS RIVER	7/17/2018



Photograph 11 - Looking north at girder 1, span 5 just east of floor beam 4. Note: drilled crack in horizontal stiffener has not propagated into the girder web.

NBI #	Structure #	County	Fac. Carried	Fac. Intersected	Insp. Date
17611	5159 0300 X		S.H. 100	ARKANSAS RIVER	7/17/2018



Photograph 12 - Looking north at girder 1, span 6 near floor beam 6. Note: drilled retrofit in upper horizontal stiffener.

NBI #	Structure #	County	Fac. Carried	Fac. Intersected	Insp. Date
17611	5159 0300 X		S.H. 100	ARKANSAS RIVER	7/17/2018



Photograph 13 - Looking north at girder 1, span 6 near floor beam 7. Note: drilled retrofit in upper horizontal stiffener.

NBI #	Structure #	County	Fac. Carried	Fac. Intersected	Insp. Date
17611	5159 0300 X		S.H. 100	ARKANSAS RIVER	7/17/2018



Photograph 14 - Looking north at girder 1, span 6 near floor beam 9. Note: drilled retrofit in upper horizontal stiffener.

NBI #	Structure #	County	Fac. Carried	Fac. Intersected	Insp. Date
17611	5159 0300 X		S.H. 100	ARKANSAS RIVER	7/17/2018



Photograph 15 - Looking south at girder 2, span 6 near floor beam 9. Note: drilled retrofit in upper horizontal stiffener.

NBI #	Structure #	County	Fac. Carried	Fac. Intersected	Insp. Date
17611	5159 0300 X		S.H. 100	ARKANSAS RIVER	7/17/2018



Photograph 16 - Looking south at beam 1 bearing stiffener for span 15 over pier 14. Note: 1 3/4-inch long vertical paint crack in the weld.

NBI #	Structure #	County	Fac. Carried	Fac. Intersected	Insp. Date
17611	5159 0300 X		S.H. 100	ARKANSAS RIVER	7/17/2018



Photograph 17 - Looking north at the stringer 2 connection to floor beam 3 in span 6. Note: 1 loose bolt in connection to the floor beam.

NBI #	Structure #	County	Fac. Carried	Fac. Intersected	Insp. Date
17611	5159 0300 X		S.H. 100	ARKANSAS RIVER	7/17/2018



Photograph 18 - Looking northwest at the stringer 1 connection to floor beam 11 in span 6. Note: 5 loose bolts in connection angle to the floor beam web.

NBI #	Structure #	County	Fac. Carried	Fac. Intersected	Insp. Date
17611	5159 0300 X		S.H. 100	ARKANSAS RIVER	7/17/2018



Photograph 19 - Looking south along floor beam 1, span 7. Note: gusset plate at stringer 3 is bent between the two diagonals up to 9/16 inches. The floor beam bottom flange is twisted and rolling to the east up to 8 degrees near midspan.

NBI #	Structure #	County	Fac. Carried	Fac. Intersected	Insp. Date
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Photograph 20 - Looking northeast at the connection plate for floor beam 0, span 6 at the girder 2 bottom flange. Note: the horizontal weld has cracked full length.

NBI #	Structure #	County	Fac. Carried	Fac. Intersected	Insp. Date
17611	5159 0300 X		S.H. 100	ARKANSAS RIVER	7/17/2018



Photograph 21 - Looking northeast at the connection plate for floor beam 0, span 6 at girder 2 bottom flange. Note: 1/2-inch and 1 1/8-inch long cracks in welded repair plate.

NBI #	Structure #	County	Fac. Carried	Fac. Intersected	Insp. Date
17611	5159 0300 X		S.H. 100	ARKANSAS RIVER	7/17/2018



Photograph 22 - Looking west at the lower lateral bracing connection to the gusset plate at girder 2, east face of floor beam 12 in span 6. Note: 5 5/8-inch long crack in the weld between the bottom angle and the bracing gusset plate, no change since last inspection.

NBI #	Structure #	County	Fac. Carried	Fac. Intersected	Insp. Date
17611	5159 0300 X		S.H. 100	ARKANSAS RIVER	7/17/2018



Photograph 23 - Looking north at the west abutment. Note: backwall has rotated east 1 1/8 inches over 4 feet.

NBI #	Structure #	County	Fac. Carried	Fac. Intersected	Insp. Date
17611	5159 0300 X		S.H. 100	ARKANSAS RIVER	7/17/2018



Photograph 24 - Looking north at the east abutment backwall at girder 1. Note: backwall is leaning 11/16 inch over 4 feet.

Oklahoma Department of Transportation
Project Management Division (405)522-7601 Fax (405) 522-7612 Room 1-C6

DATE: **September 26th, 2018**

TO: **Distribution List**

FROM: **Project Management Division**

SUBJECT: **Project Initiation Report - final**

EXISTING PROGRAMMED INFORMATION

J/P Number: 32100(04) County: Muskogee Highway: SH-100 Division: One
PS&E Date: 2023 R/W Date: 2021 Drive-out Date: September 5th, 2018
Programmed Estimate: $ 18,000,000
Project Description: Bridge over Arkansas River at the Muskogee/Sequoyah C/L

Reconnaissance Information Available

■ Yes Location http://plansrv1/osd/JP3210004/PSEDevelopment/DataReconnaissance/
□ No

Functional Classification

Area Type:	□ Urban	□ Suburban	■ Rural	
Terrain Type:	■ Flat	□ Rolling	□ Mountainous	
Access Control:	□ Full	□ Partial	■ None	
Highway Type:	□ Freeway	□ Principal Arterial	□ Minor Arterial	■ Collector
	□ NHS	■ Non-NHS	□ STRAHNET	□ Scenic Hwy

Existing Condition

Current ADT: 4,300 % Trucks: 5% Number of Lanes: 2 Lane Width: 12’
Outside Shoulder Width: 10’ Inside Shoulder Width: -
■ Open Section □ Curb & Gutter □ Divided, median width:
□ Other (describe):
Pavement Type: Concrete Pavement Condition: ■ Good □ Fair □ Poor
Shoulder Type: Asph. Shoulder Condition: ■ Good □ Fair □ Poor
Storm Sewer ■ No □ Yes Storm Sewer Condition: □ Good □ Fair □ Poor
Sidewalks ■ No □ Left Width: ' □ Right Width: '

Bridges within Project extents: SEE ATTACHED INSPECTION REPORTS
Bridge One NBI #: 17611

CONSIDERATIONS

Environmental/Right-of-Way

■ Historic Properties, list: 2 moderate potential NHRP, 3 - 1898 homesteads with no potential, 1 low potential NRHP
■ Archeological Sites, list: 2 sites, minimum potential
■ Cemeteries, list: 2 cemeteries (small family cemetery, Gore cemetery)
■ Hazardous Waste Sites/ AST's/ Coal Mines/LUST Sites, list: 1 Hazardous waste, 1 UST, LUST, or AST site
■ Threatened & Endangered Species, list with seasonal restrictions: Gray Bat, Indian Bat, Northern Long-Eared Bat, Least Tern, Piping Plover, Red Knot, Whooping Crane, ABB
□ Aquatic Species, list with seasonal restrictions:
■ Section 4F or 6F Properties, list: Webbers Fall municipal park, Summers Ferry Park
□ Farmland ■ Wetlands □ Scenic Rivers and Protected Aquifers □ Critical Resource/ Sensitive Waters/Impaired Waters (type of impairment), List:
■ FEMA Flood Zone ■ A ■ AE □ X
□ Compensatory Flood Storage
□ Indian/Tribal/Federal/Wetland Reserve Program Properties, List:
□ Scenic Byway/Route 66

Alternative Impacts

■ Other Agencies List: Coast Guard
□ Turnpike Involvement
□ Metropolitan Planning Organizations List:

Right-of Way/Utilities

Additional R/W Anticipated ■ No □ Yes
Describe:
Utility Conflicts □ No ■ Yes
Describe: all utilities must be removed from the bridge

Permit Information

Design Exception Anticipated: □ No □ As required by design □ Yes, type:
Maintenance Agreements (Lighting, Signals, etc.): □ No □ Yes, type:
Permits required: □ FAA ■ USACE □ OWRB □ Railroad □ Other, type:
Comments for required permits: (Name and distance to airport, anticipated USACE permit type, Railroad owner, active or abandoned rail line, etc.)

Special Considerations: Arkansas River is a Navigable waterway and is listed as Section 10 Water. Bridge design will need to be approved by the Coastguard prior to 30% plans. The City of Gore has a city park located on the North side at the end of the project which should be avoided. Navigation lights will need replacement in consultation with the Coastguard.

PROPOSED IMPROVEMENT

Project Intent:

Replace Bridge and minimal Guardrail.

Description of Proposed Improvements:
The Project Initiation Team recommends full replacement of the SH-100 bridge over the Arkansas River. It will be replaced with a 40' Clear Roadway bridge on existing alignment. The new bridge will utilize existing pier protection. The replacement bridge will be designed for a future widening to the South. The bridge will be built using a constant cross slope rather than a crowned section. Guardrail currently meets standards, so the guardrail will be removed back to the beginning of the taper if necessary and tied into the new bridge. Shoulder replacement may be needed in guardrail replacement area. Minimize Roadway impact.

Design Speed: 55 mph

Potential to transfer steel bridge beams to County
■ No □ Yes □ N/A
Fully document specific reasons preventing transfer:

Design Resource Allocation: ■ ODOT □ EXTERNAL

Project Termini
Beginning of Project: Approx. 500' East of existing bridge
End of Project: Approx. 500' West of existing bridge

Limits of Survey: 150' LT & RT of Center. 1500' East of Bridge & 2000' West of Bridge. Channel profile needed.
Limits of NEPA Survey Area: Same as limits of survey

Typical Section
■ Open Section □ Curb & Gutter □ Divided, median width:
□ Other (describe):
Number of Lanes: 2 Lane Width: 12'
Outside Shoulder Width: 8' Inside Shoulder Width: N/A
Storm Sewer ■ No □ Yes
Sidewalks ■ No □ Left Width: ' □ Right Width: '
Sidewalk decision comments:
Overlay ■ No □ Yes, thickness:
Coldmill ■ No □ Yes, thickness:
Add Shoulders ■ No □ Yes, width: '
Bridge Width 40' Clear Roadway

Alignment
■ Existing
□ New, located □ North or □ South or □ East or □ West of existing
□ Parallel Lanes, located □ North or □ South or □ East or □ West of existing
Alignment decision comments:
□ Spot Improvements
□ Horizontal, Description:
□ Vertical, Description:

Detour

□ Shoo-fly, located □ North or □ South or □ East or □ West of existing
□ Widening, located □ North or □ South or □ East or □ West of existing
□ Crossovers
■ Close Road □ Round Robin Approved
■ Signed Detour, Route Description: 10 mi. SH-100 to I-40 to SH-64
Anticipated duration of Detour:
□ Public Meeting Required □ Agreement Required
□ Phased Construction, Description:

Aesthetics ■ No □ Yes
Description of proposed aesthetic treatments:

Traffic Items

Traffic Management Plan	■ No	□ Yes	
Median Barrier	■ No	□ Yes	
New Guardrail	□ No	■ Yes	
End Treatment	■ No	□ Type:	
Highway Lighting	■ No	□ Outside or	□ Median
Traffic Signals	■ No	□ Location(s):	

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:	$ 426,000	Total Construction:	$ 12,442,248
Bridge:	$ 10,900,000		
Traffic Control:	$ 90,000	Right-of-Way:	$ TBD
Signing and Striping:	$ 25,000	Utility:	$ TBD
Highway Lighting:	$ -		
Traffic Signals:	$ -	Total Estimate:	$ TBD
Mobilization:	$ 522,640		
Staking:	$ 239,273		
E & C:	$ 717,818		

Pending Program Revisions:

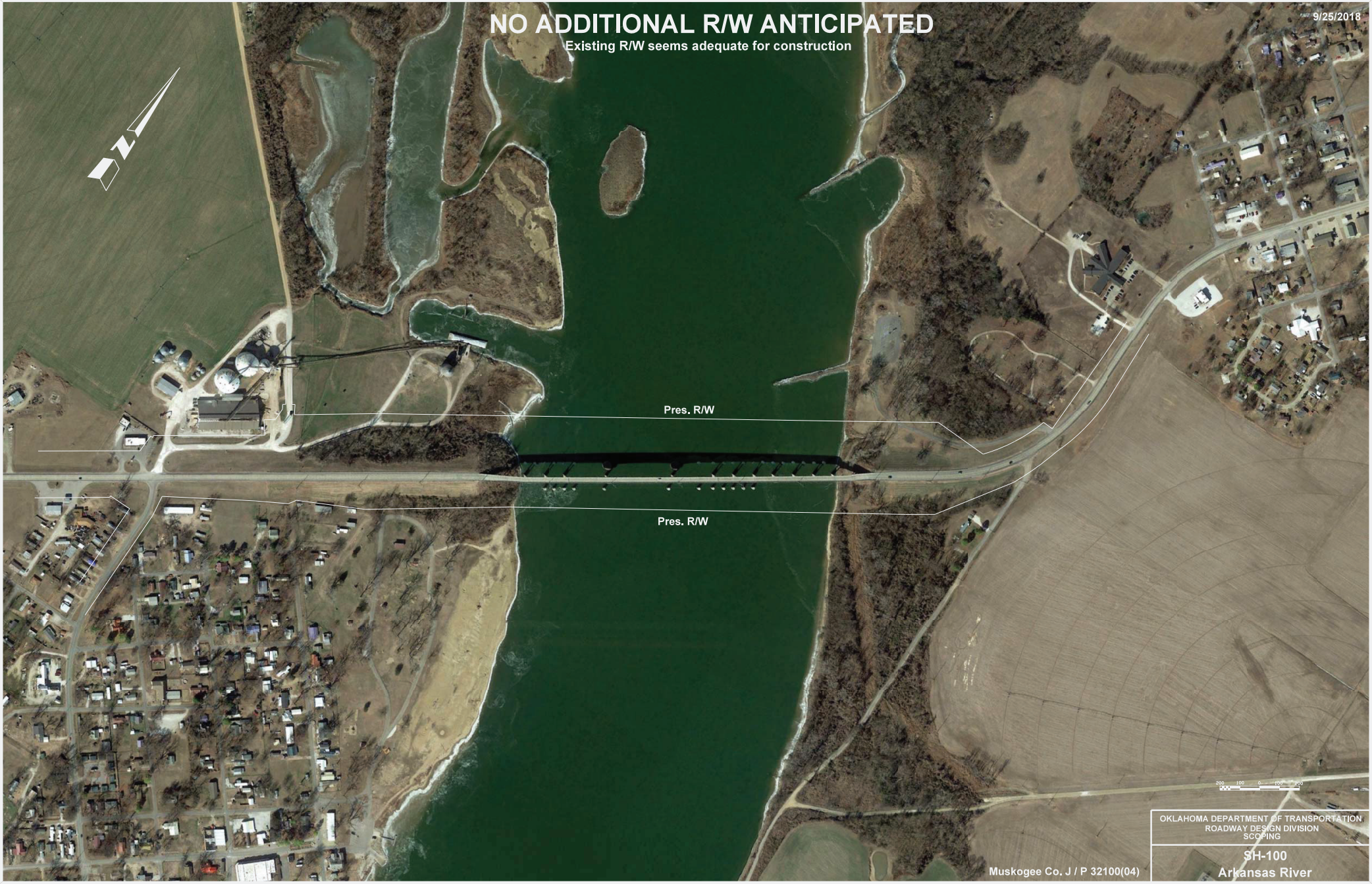
Estimate: $	Letting Date:	Project Length:
Work Type:	Description:	

Attendee Name	Representing
Darin Stratton	Survey Division
Leslie Lewis	Bridge Division, Hydraulics
Patty Defranco	Bridge Division
Mattie Abbott	Roadway Design Division
Korben Neftzger	Roadway Design Division
Steven Bowen	Roadway Design, Geometrics
Andrew Embry	Training Division, EIT
Douglas Charboneau	Right of Way Division - Utilities
Awet Frezgi	Traffic Division
Leslie Novotny	Environmental Programs Division
Jamie Malmstrom	Field Division One
Chris Wallace	Field Division One
Brian Linam	Project Management Division

Attachments (Aerial with Preliminary RW)
(Bridge Inspection Reports)

Distribution List:

Attendees	Director of Engineering
Director of Capital Programs	FHWA
Right-of-Way Division	Traffic Engineering Division
Strategic Asset & Performance Management Division	


NO ADDITIONAL R/W ANTICIPATED
Existing R/W seems adequate for construction
9/25/2018
Pres. R/W
Pres. R/W
OKLAHOMA DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
SCOPING
SH-100
Arkansas River
Muskogee Co. J / P 32100(04)

OKLAHOMA DEPARTMENT OF TRANSPORTATION - Bridge Inspection Report

Suff. Rating: 66.7 Health Index : 83.9

NBI No.: **17611** Structure No.: 5159 0300 X Local ID:-1 ND

IDENTIFICATION

Description: 4(100'CONT.)(207'-334'-207'CONT.)3(100'CONT.)4(100'CONT.)75' PLATE GIRDER S

1. State: Oklahoma 2. SHD District: Division 1
3. County Code: MUSKOGEE 4. Place Code: Unknown
Admin. Area: Unknown
5. Inventory Route (Route On Structure) : 1 - 3 - 1 - 00100 - 0
6. Feature Intersected: ARKANSAS RIVER
7. Facility Carried: S.H. 100 S.H. 100
9. Location: SEQUOYAH C/L 11. Mile Post: 2.999 mi
13. LRS Inv. Route./ Subroute.: -1 -1
16. Latitude: 35 31 14.59 17. Longitude: 095 07 24.89
98. Border Br. Code: Unknown (P) % Resp. : 0 99. Border Br. #: Unknown

INSPECTION

Type	Insp Req.	Insp Done	Freq:	Insp. Date:	Next Insp.:
NBI:		Y	24	8/9/2017	8/9/2019
FC Freq.:	Y	Y	24	**8/9/2017**	**8/9/2019**
UW Freq.:	Y	N	60	**10/12/2012**	**10/12/2017**
OS Freq.:	Y	N	24	**8/8/2015**	**8/9/2018**

CLASSIFICATION

12. Base Hwy Network : Not on Base Network
20. Toll Facility: 3 On free road
21. Custodian: 01 State Highway Agency
22. Owner: 01 State Highway Agency
26. Functional Class: 07 Rural Mjr Collecto
37. Historical Sig.: 5 Not eligible for NRHP
100. Defense Highway: 0 Not a STRAHNET h
101. Parallel Structure: No || bridge exists
102. Dir. of Traffic: 2 2-way traffic
103. Temp. Structure: Not Applicable (P)
104. Highway System: 0 Not on NHS
105. Fed. Land Hwy 1 IRR-Indian Res Rd
110. National Truck Network: 0 Not part of na
112. NBIS Length: Long Enough

STRUCTURE TYPE AND MATERIALS

43. Main Span Material and Design Type
Steel Continuous Girder-Floorbeam
44. Approach Span Material and Design Type
Steel Stringer/Girder
45. No. of Spans Main Unit: 3 46. No. of Approach Spans: 11
107. Deck Type: 1 Concrete-Cast-in-Place
108A. Wearing Surface: 5 Epoxy Overlay
108B. Membrane: 0 None
108C. Deck Protection: 8 Unknown

CONDITION

58. Deck: 6 Satisfactory
59. Super.: 5 Fair
60. Sub.: 6 Satisfactory
62. Culvert: N N/A (NBI)
61. Channel/Channel Protection: 6 Bank Slumping
Flowline Notes:

08-09-2017 - Flowline data was not recorded, Refer to most recent U/W report for flowline data.

AGE AND SERVICE

27. Year Built: 1969 106. Year Reconstructed: Unknown
28A. Lanes on: 2 28B. Lanes Under: 0 19. Detour Length: 9.9 mi
29. ADT: 3300 30. Year of ADT: 2015 109. Truck ADT %: 15
42A. Type of Service on: 1 Highway
42B. Type of Service under: 5 Waterway

LOAD RATING AND POSTING

31. Design Load: 5 MS 18 (HS 20)
41. Posting status: A Open, no restriction
63. Op. Rating Method: 1 LF Load Factor-Ton
Alt. Op. Rating Meth.: 1 LF Load Factor-To

64. Operating Rating (H / HS / 3-3):	33.3	54.4	75.8
66. Inventory Rating (H / HS / 3-3) :	19.9	32.6	45.5

65. Inv. Rating Method: 1 LF Load Factor-Ton
Alt. Inv. Rating Meth.: 1 LF Load Factor-Tor
70. Posting: 5 At/Above Legal Loads
Date Rated : 11/24/2003

GEOMETRIC DATA

10. Inv. Rte. Min. Vert. Clr.: 328.1 ft
32. Approach Roadway Width (W/ Shoulders): 44.0 ft
Deck Area: 68,060.9 sq. ft
33. Median: 0 No median
34. Skew: 0
35. Structure Flared: 0 No flare
47. Inv. Rte. Total Horiz. Clr.: 28.0 ft
48. Length Maximum Span: 334.0 ft
49. Structure Length: 1,928.1 ft
50A. Curb/Sdwlk Wdth L: 1.5 ft
50B. Curb/Sidewalk Width R: 4.0 ft
51. Width Curb to Curb: 28.0 ft
52. Width Out to Out: 35.3 ft
53. Minimum Vertical Clearance Over Bridge: 328.1 ft
54A/54B. Min. Vert. Underclearance : N Feature not hwy or RR 0.0 ft

	N/E			S/W		
Meas.	-1	-1	-1	-1	-1	-1
Post.	DO NOT U	DO NOT U	DO NOT U	DO NOT U	B&N	EC-1812 I

55A/55B. Minimum Lateral Undrclearance R: N Feature not hwy or RR 0.0 ft
56. Minimum Lateral Undrclearance L: 0.0 ft

PROPOSED IMPROVEMENTS

94. Bridge Cost: $11,530,195
75. Type of Work: 31 Repl-Load Capacity
95. Roadway Cost: $4,500,000
76. Lgth. of Improvment: 1,928.1 ft
96. Total Cost: $16,937,565
114. Future ADT: 5280
97. Year of Cost Est.: 2015
115. Year of Future ADT: 2035

NAVIGATION DATA

38. Navigation Control: Permit Required
39. Vertical Clearance: 52.0 ft
40. Horizontal Clearance: 300.0 ft
111. Pier Protection: 2 In-Place, Functioning
116. Lift Bridge Vert. Clear.: 0.0 ft

APPRAISAL

36A. Bridge Rail: 0 Substandard
36C. Approach Rail: 1 Meets Standards
36B. Transition: 1 Meets Standards
36D. Approach Rail Ends: 1 Meets Standards
67. Str. Evaluation: 5 Above Min Tolerable
68. Deck Geometry: 4 Tolerable
69. Underclearance, Vertical and Horizontal: N Not applicable (NBI)
71. Waterway Adequacy: 8 Equal Desirable
72. Approach Alignment: 6 Equal Min Criteria
113. Scour Critical: 8 Stable Above Footing

200c. Temperature: 80
200d. Weather: PARTLY CLOUDY
201. Structural Steel ASTM Desig.: A-36 -1
202. Waterproof Membrane : -1
Date Installed : 1/1/1901
203. Type Exp. Dev. : Finger Joint
-
204. Type of Handrail: PTR-1 (square hand rail)
205. Material and Quantity : -3.0
208. Type of Abutment : Skeleton
Type of Foundation : Steel Piling
209. Type of Pier / Found.: 2 Piers No
No Piling or Drilled Shaft
210. Foundation Elev. 4402.0 4352.0
-1.0 4400.0 -1.0
211. Wear. Surf. Prot. System : None
Date Installed : 1/1/1901
213. Utilities Attached : Communication
Natural Gas Power -1
-1 -1 -1

214a. Posted Weight Limit: NR
b. Posted Speed Limit : -1
c. Narrow/One Lane Bridge sign : -1
d. Vertical Clearance Sign: _
Advanced Warning Sign : _
e. Navigation Lights : YES
Working/Not Working : YES
215. Overpass : B - State Highway
221. Substructure Cond. (U/W) : -
222. Fill over RCB: 0
223. Appr. Slab/Rdwy Cond.: Good
225. Paint Type : Organic Zinc
Overcoat : Not Applicable
226. Date Painted: 1210
227. Paint Coloring: Gray
233. Deck Forming: -
238. School Bus Rte: Current and Desired Route
240. Appr. Roadway Type: Concrete

243. Girder Spacing/Number : -1.0 / -1
244. Span Lengths :
-1 -1 -1
-1 -1 -1
-1 -1
245. Girder Depth : -1.000
246. Type of Overlay : Chipseal
246. Overlay Thickness : 0.1
246. Overlay Date : 5/1/2014
246. Overlay Depth Changed > 1"? _
247. Protective Systems : 1: _
2: _ 3: _
4: _ 5: _
248. No. of Field Splices w/ Corrosion : 3
249. Scour Crit. POA exists?: _
250. Culvert Headwall Dist.: -1.0
256. Chan. Profile Up/Down Stream?: _
257a. OkiePROS Auto. Truck Routing Yes
258. Plans w/ found. are in file at ODOT:
259. Scour Eval. is in file at ODOT:
263. Interchange at Intersection: No Interchange
264. Interstate Milepoint: -1.00

OKLAHOMA DEPARTMENT OF TRANSPORTATION - Bridge Inspection Report

NBI No.: **17611** Structure No.: 5159 0300 X Local ID:-1 Suff. Rating: 66.7 ND Health Index : 83.9

Inspection Date: 8/9/2017 Reported By: MSEAL

Invoice No.: -1 Inspected With: -1

Agency :

Structure / Inspection Notes

15 span structure consisting of: Spans 1-4 100-foot long continuous steel multi girders spans; Spans 5-7 three span continuous steel twin girders (207 feet, 334 feet, 207 feet); Spans 8-10 three 100-foot long continuous steel multi girders spans; Spans 11-14 four 100-foot long continuous steel multi girders spans; Span 15 100-foot long simple steel multi girder span.
OS Inspection Items Include:
Girder web cracks which have not been arrested and cracks with drilled hole retrofits; Crack on exterior face of beam 1 in span 15, near pier 14; Floor beam 0 lower connection to girder 2, span 6; Cracked welds between lower lateral bracing gusset plates and bottom angles; Kinks and bends in floor beams adjacent to the piers; recently replaced floor beams and the welded connections to the girders and the stringers; Welds at recently reattached floor beam 0 lower chord connection to girder in span 7; Loose stringer bolts at floor beam 3, 5, 6, 11 and 12 in span 6; Abutment movement and erosion.

PX - Replace rail post anchor bolts in E most rail post along north barrier at end of east approach slab; Unclog deck scupper in S10 near P10; Arrest girder web cracks via drilled holes that have not previously been arrested; Replace bolts in horizontal web splice in G1 at P6; Arrest crack on exterior face of B1 in S15, near P14; Tighten loose stringer bolts at stringer to floor beam connections; Reattach FB0 lower connection to G2 in S6. Consider bolting previously welded connection; Tighten loose bolts and replace missing bolts at FB to G connections; Replace severed LLB hanger rods and missing connection brackets; Repair cracked welds betweenLLB GPs and bottom angels at G2, E face of FB11 in S6 and G2, E face of FB7 in S5; Tighten loose anchor bolts and replace missing or bent anchor bolts at fixed bearings.
FX - Monitor: spalls in the sidewalk of S5, near P4 for growth and possible hazard to pedestrians; Epoxy overlay for further deterioration; Deck soffit along Gs, FBs and stringers for further deterioration; Vertical offset in the P4 finger joint for changes in height; Drilled hole retrofits and paint cracks for signs of crack propagation or initiation; Surface corrosion and pack rust along the top flange of the Gs and between the girder top flanges and the deck; Painted over pitting at G webs adjacent to the top of the LLB GPs for reactivation. Remove any debris accumulation at these locations; Pack rust btwn G web horizontal splices; FB welded connections; FB 0 LC connection to G in S7; Kinks and bents in FB; Gouges in FB 2 member U3L2 S6; LLB connection for pack rust; E and W abut slope for further errosion and undermining; Abuts for movment towards channel; Pack rust at fixed bearings.

Elm.	Env.	Description	Un.	Qty.	Qty.St. 1	% 1	Qty.St. 2	% 2	Qty.St. 3	% 3	Qty.St. 4	% 4	Qty.St. 5	% 5
12	1	Reinforced Concrete Deck	(SF)	53,984	0	0 %	53,444	99 %	540	1 %	0	0 %	0	0 %
107	1	Steel Open Girder Beam	(LF)	4,780	3,920	82 %	478	10 %	382	8 %	0	0 %	0	0 %
113	1	Steel Stringer/Floorbeam	(LF)	1,914	1,852	97 %	50	3 %	12	1 %	0	0 %	0	0 %
152	1	Steel Floor Beam	(LF)	891	659	74 %	200	22 %	32	4 %	0	0 %	0	0 %
205	1	Reinforced Conc Column or Pile Extension	(EA)	26	23	88 %	0	0 %	3	12 %	0	0 %	0	0 %
215	1	Reinforced Conc Abutment	(LF)	80	0	0 %	80	100 %	0	0 %	0	0 %	0	0 %
234	1	Reinforced Conc Cap	(LF)	594	581	98 %	13	2 %	0	0 %	0	0 %	0	0 %
310	1	Elastomeric Bearing	(EA)	12	12	100 %	0	0 %	0	0 %	0	0 %	0	0 %
311	1	Moveable Bearing (roller, sliding, etc.)	(EA)	30	0	0 %	30	100 %	0	0 %	0	0 %	0	0 %
313	1	Fixed Bearing	(EA)	30	0	0 %	30	100 %	0	0 %	0	0 %	0	0 %
321	1	Reinforced Conc Approach Slab w/ or w/o AC O	(EA)	2	1	50 %	1	50 %	0	0 %	0	0 %	0	0 %
330	1	Metal Bridge Railing	(LF)	3,856	3,656	95 %	200	5 %	0	0 %	0	0 %	0	0 %
331	1	Reinforced Conc Bridge Railing	(LF)	3,856	3,856	100 %	0	0 %	0	0 %	0	0 %	0	0 %
510	1	Wearing Surfaces	(SF)	53,984	40,488	75 %	13,496	25 %	0	0 %	0	0 %	0	0 %
515	1	Steel (Superstructure) Protective Coating	(SF)	140,000	0	0 %	140,000	100 %	0	0 %	0	0 %	0	0 %
859	1	Soffit of Concrete Decks and Slabs	(EA)	1	0	0 %	1	100 %	0	0 %	0	0 %	0	0 %
865	1	Steel Open Girder/Beam End (5 Ft.)	(LF)	180	140	78 %	40	22 %	0	0 %	0	0 %	0	0 %
872	1	Steel Girder Under Construction Joint	(LF)	1,236	1,116	90 %	100	8 %	20	2 %	0	0 %	0	0 %
877	1	Steel Stringer End (5 Ft.)	(LF)	30	30	100 %	0	0 %	0	0 %	0	0 %	0	0 %
879	4	Steel Stringer Under Construction Joint	(LF)	300	300	100 %	0	0 %	0	0 %	0	0 %	0	0 %
906	1	Sealed Expansion Joint (SEJ-3)	(LF)	105	105	100 %	0	0 %	0	0 %	0	0 %	0	0 %
907	1	Steel Finger Joint (SED-2)	(LF)	70	70	100 %	0	0 %	0	0 %	0	0 %	0	0 %
909	1	Pourable Fixed Joint Seal	(LF)	1,890	1,890	100 %	0	0 %	0	0 %	0	0 %	0	0 %
916	1	Steel Bearing Assembly	(EA)	12	12	100 %	0	0 %	0	0 %	0	0 %	0	0 %
919	1	Steel (Railing) Protective Coating	(SF)	9,260	9,260	100 %	0	0 %	0	0 %	0	0 %	0	0 %
956	1	Steel Cracking/Fatigue	(EA)	1	0	0 %	1	100 %	0	0 %	0	0 %	0	0 %
957	1	Pack Rust	(EA)	1	0	0 %	0	0 %	1	100 %	0	0 %	0	0 %
958	1	Concrete Cracking	(EA)	1	1	100 %	0	0 %	0	0 %	0	0 %	0	0 %
960	1	Settlement	(EA)	1	0	0 %	1	100 %	0	0 %	0	0 %	0	0 %
963	1	Steel Section Loss	(EA)	1	0	0 %	1	100 %	0	0 %	0	0 %	0	0 %
969	1	Out-Of-Plane Distortion/Loading	(EA)	1	1	100 %	0	0 %	0	0 %	0	0 %	0	0 %

Additional Elements

Elem.	Element Notes (Include Size and Location of Deterioration
12	PX – Deck scupper in span 10 near pier 10 is clogged. FX – 2014 epoxy grit overlay is failing in patches throughout deck, mostly along the wheel lines. Longitudinal cracks exist along deck surface, mostly in wheel lines; Transverse cracks exist on surface randomly along full length of bridge; Debris is accumulating along side of deck. This is not currently problematic.
107	PX - S5 G1 near FB5 5/8in crack; S6 G2 near midspan nav light conduit cracked; Missing bolts at G1 at P6 in horizontal web splice and G2 S5 near FB5; B1 S15 at P14 1 3/4in crack w/ 19in paint crack in stiffener fillet weld. FX - S5 G2 near FB 5 3/8in paint crack; S6 G1 near FB3 3/4in crack arrested w/ drilled holes; S7 G1 near FB4 paint cracks; S7 G2 near FB4 two vertical cracks arrested w/ drilled holes; Surface corrosin w/ 1/8in pack rust btwn top flange and deck; Painted over pitting in grider webs adj to LLB GP's; Pack rust btwn horizontal splice plates of girders up to 1/4in; Pack rust up to 1in typ btwn girder cross frames and vertical stiffeners. Active corrosion at girder horizontal splices at bearing stiffeners over piers 5 and 6; Cracks at several long. stiffener butt welds on exterior faces of twin girders. See FC for full location list; Pack rust and SL up to 3/16in in girder top flanges at several of deck joints.

Elem.	Element Notes (Include Size and Location of Deterioration
113	PX - Loose stringer connection bolts exists between the connection angles and the floorbeam webs at various locations. A portion of stringer 3, at floor beam 0, span 7 has been removed and replaced via welds due to previous corrosion hole.
152	PX - FB 0 S 6 at P5 at G2 crack full width of horizontal weld along bottom of truss floor beam gusset plate. Vertical weld in this location is cracked full height (3 1/2 in). GP has been reinforced by a 3in by 1/2in diagonal strut which is now bowed out of plane 3/16in; Loose and misaligned bolts and blind holes in several locations. See FC report for full list. FX - Floor Beam 3 in Span 5, Floor Beam 0 above Pier 5 and Floor Beam 0 above Pier 6 were replaced during recent rehabilitation work and reattached via welded connections of marginal quality; Several kinks and bends were noted in floor beam members and gusset plates; Small gauges were noted in U3L2 of floor beam 2, in span 6. Oversized holes in several locations, no signs of distress; Several FB exhibit surface corrosion along deck top flange w/ evidence of deck pumping.
205	Top of the pier 5 column base on west face of pier exhibits multiple exposed and corroding reinforcing steel ends. Pier 5 also exhibits sporadic hairline shrinkage cracks and isolated areas of small delaminations; Piers generally exhibit no significant deficiencies with minor rust staining at bearings.
215	FX – East abutment slope has new fill with small concrete riprap up to abutment breastwall. Vines and vegetation have grown over installed riprap and it is no longer visible. No erosion was observed. Bottom of abutment breastwall is already exposed due to prior erosion although no piles could be seen at time of inspection. Bottom of west abutment breastwall is exposed up to 2 inches high and 4 feet wide at both ends; Both abutments appear to be moving towards channel. Both abutments are supported on vertical piles which are susceptible to movement from soil pressure acting behind abutments. For this inspection, at west abutment difference in measurement between abutment backwall and girder flange is 2-3/8 inches for girders 3 and 4 (8-1/8 in difference at bottom and 5-3/4 in at top). Movement most likely is responsible for excessive bearing rotations observed at piers 4, 7 and 10. Minor shallow spalls with no exposed reinforcing steel are present in southwest wingwall.
234	Spalling and scaling concrete with exposed corroded reinforcing steel exists in bridge seat area on piers 4 and 14. At pier 4, scaling concrete exists around the bearing for girder 1 of span 5.
310	Elastomeric bearings installed at the following locations: Span 4 at Pier 4, Span 8 at Pier 7, Span 11 at Pier 10. No significant dificiencies noted at the time of the inspection.
311	Rocker bearings typ. have rust staining and active laminating corrosion on bearing components and masonry plate.
313	PX – Fixed bearing 1 at pier 3 anchor bolts are bent and exhibit fretting corrosion. Fixed bearing 1 at pier 5 has several different length anchor bolts and the bolts are typically not fastened tightly. Fixed bearing under girder 1, pier 9 is missing one anchor bolt at the southwest corner of the bearing. All of the other bolts are negatively threaded at this location. FX - The fixed bearings have surface corrosion and many of the bearing anchor bolts have loose nuts.
321	West approach contains recently poured concrete approach slabs that are in good condition. East approach is in similar condition with exception to 1/16-inch max width longitudinal cracking in wheel lines; A spall measuring 2 feet by 6 inches exists along east abutment joint.
330	PX – The easternmost rail post along the north barrier at the end of the east approach slab is missing all four anchor bolts. No other dificiencies noted.
331	No significant deficiencies noted.
510	FX – 2014 epoxy grit overlay is failing in patches throughout deck, mostly along wheel lines.
515	Bridge was repainted in 2010. Areas of previous corrosion and pack rust are reactivating in many locations especially at gusset plates near expansion joints. Pack rust is active in many girder horizontal web splices. Previous PX of laminating corrosion and pack rust at lower lateral bracing gusset plates were repaired prior to 2014 OS although corrosion is reactivating in isolated locations.
859	FX – Shallow spalls are common along girders, floor beam and stringer top flanges. Isolated locations have larger spalls with exposed corroding reinforcing steel, most likely due to pack rust between the top flange and the deck. See details on pack rust in the Super Structure Section. 1/4-inch wide cracks exist along the stringer deck haunch at locations in span 6 where stringers are not continuous over floor beam members; Transverse cracking with efflorescence is common and sporadic throughout but are heaviest and typically spaced at 5 feet within three floor beams of the piers. A light density of shrinkage and hairline cracking is common throughout.
865	Active corrosion was noted at the girder horizontal web splices at the bearing stiffeners over piers 5 and 6. Section loss up to 3/16-inch deep exists in the girder top flanges at several of the deck joints. Pack rust between the deck and the girder top flange is also common.
872	Pack rust and laminating corrosion has reactivated beneath joints.
877	PX - There are loose stringer connection bolts at isolated locations. See FC report for full list.
879	Isolated areas of surface corrosion.
906	No significant defiencies.
907	FX – The pier 4 finger joint exhibits moderate debris impaction along with a slight vertical offset of 1/8 to 3/16 inch higher from the west assembly to the east assembly. Pier 7 finger joint is in similar condition with a few fingers exhibiting a 1/8-inch vertical offset. Elastomeric troughs at finger joints were replaced during 2014 rehab and are in good condition.
909	Poured seal control joints typically spaced at 18 feet in approach spans, and at 50 to 75 feet in main spans, 5-7, seem to have been recently installed and are generally in satisfactory condition; Poured fixed joint at E abutment is in good condition with minor debris impaction.
916	Steel bearing assemblies have been installed along with elastomeric bearings at the following locations: Span 4 at Pier 4, Span 8 at Pier 7, Span 11 at Pier 10. The anchor nuts on these bearings are loose.
919	No deficiencies noted.
956	PX - 5/8in long crack in S5 G1 at FB5; conduit light cracked over 3/4 circumference at S6 G2; A 1 3/4-inch long crack and 19-inch long paint crack indication was observed at the exterior face of beam 1, span 15, near pier 14; FB 0, S6 over P5 at G2 vertical and horizontal weld cracked full width. FX - Several other cracks have previously been arrested by drilling holes. Cracks in FB truss welded connections. Cracks in LLB diagonals due to pack rust, not corrected during 2014 Rehab and potential crack in stringer 1 to FB 0, span 5 welded connection.
957	PX - Active pack rust at LLb gusset plates. FX - pack rust btwn horizonal web splices of girders and girder cross frames in multi girder spans.
958	Longitudinal cracking typ along deck surface in wheel lines; Transverse cracking in random locations throughout full length of bridge.
960	FX - Both abutments moving towards channel. West abutment differencebtwn girder flange and backwall is 2 3/8in for G3 and 4 (8 1/8in difference at top and 5 3/4in at bottom).
963	Section loss up to 3/16in in girder top flanges at several deck joints.
969	FX – Several kinks and bends were noted in the floor beam members and gusset plates in the main spans.

OKLAHOMA Transportation

OKLAHOMA DEPARTMENT OF TRANSPORTATION

PROJECT STATUS SYSTEM

Logout
Project

Home > List Projects > Edit Project

Environmental | Design | Related Projects | Project Cost | Project Revision | Commitments | Right-of-Way | DOCUMENT VAULT | Local Government | FHWA Project Status Justification | Survey

Edit PROJECT

Cancel

Job Piece: 3210004

Status Report: ☑ AP Project: ☐ VE Project: ☐ Calculated Status: Prepare NEPA Document

Production Targets	Planned Finish	Actual Finish	Status	Cond	Consultant Evaluations
Reconnaissance Data	08/08/2016	07/19/2018	Completed		
Project Initiation	11/02/2016	09/26/2018	Completed		
Design Resource	White Engineering Associates Inc.				
EC Solicitation	11/15/2016	09/17/2019			
EC Contract	06/15/2017	03/09/2020 EC No 2143			
Survey	12/17/2018	01/17/2019	Completed		SWO 5375(1)
Hydraulics	07/30/2020	07/22/2020	Completed		
Preliminary Field Review	07/30/2020	07/24/2020	Completed		
RW & Utility Meeting	11/30/2020	11/20/2020	Completed		
Plans Submitted to R/W	03/30/2021	03/01/2021	Completed		
NEPA Document	05/30/2021		Behind		
R/W Phase		Mapping			
Legal Entry	12/30/2022		On-Time		
Prepare Traffic Plans	11/30/2022		On-Time		
Final Field Review	12/30/2022		On-Time		
Utility Out	04/30/2023		On-Time		
404 Permit	02/28/2023		On-Time		
Plans Complete	04/30/2023		On-Time		
Ready to Let	04/30/2023		On-Time		

Edit Resource and Comments

Utility Information (from the Estimated Comp Date out of Utility Relocation system)

Latest Date
-

Project Information

JP No.	Proj. ID	County	Div.	Maint.	HWY	Work Desc
3210004	J3-2100(004)PM	51 MUSKOGEE	1	1	SH100	11 BRIDGE & APPROACHES

Project Legislative Districts

Ctrl.	Start	End	Lgth	Cong	Senate	House
059	2.600	3.361	0.821	2	04	014

Project Location

Location
SH-100: OVER ARKANSAS RIVER AT THE MUSKOGEE/SEQUOYAH C/L

Project Status

Status	8Year CWP	NHS Sys.	FHWA Oversight	Comm Appr.	Fhwa Auth	Auth FFY	Let Date	FFY	Award Date	RW JP No.	RW Let
Programmed	Yes			09/2015	-		NoDate	2026	NoDate	-	-

STIP & NEPA Information

STIP FY	STIP Page	Pub Date	ODOT Appr.	TIP FY	TIP Page	MPO Appr.	NEPA Type	NEPA Appr	NEPA Re-Eval
		-	-			-	DCE	-	//

Project Budget

Award Exist	Advanced	Federal	State	Other	Total
N	0.00	5,400,000.00	12,600,000.00	0.00	18,000,000.00

ODOT/FHWA Resources Assigned

PMD	Field	FHWA	NEPA	Survey	Materials	Roadway	Bridge	Traffic	RW	Rail	Nepa Consultant
Linam	Wallace	Vacant	Ward	Stratton	-	Elyazgi	DeFranco	-	-	-	CP&Y, Inc.

Comments

no data found

Bridge Information

Proposed Bridge

NBI#	Status	Co	Ctl	Milept	Sd
17611	State Bridge	51	059	03000	

1-1

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OKLAHOMA Transportation

OKLAHOMA DEPARTMENT OF TRANSPORTATION

PROJECT STATUS SYSTEM

Logout
Project

Edit Original NEPA Document Cancel Save NEPA Document

Job Piece 3210004

Initial

Initiation Report from PMD	09/26/2018
Footprint Review Prior to Start of Studies	05/09/2019
Consultant Notice To Proceed	05/07/2019
Property Owner Notification	07/23/2019
BLM Notification	08/28/2019
BIA Notification	07/23/2019
Consultant CR/Tribal Initiation	05/20/2019

Studies

Farmland NRCS Requested	08/20/2019
Farmland NRCS Complete	09/10/2019
CR Studies Requested	04/02/2020
CR Studies Due	
CR Studies Recd	06/12/2020
Biological Studies Requested	10/06/2020
Biological Studies Due	
Biological Studies Recd	
Meeting with 404 Permit Coordinator for Delineation	
Haz Waste Studies Requested	08/01/2019
Haz Waste Studies Due	10/20/2019
Haz Waste Studies Recd	09/10/2019
Noise Studies Requested	
Noise Studies Due	
Noise Studies Recd	
Relo Studies Requested	
Relo Studies Due	
Relo Studies Recd	

NEPA Document Preparation

NEPA On Hold Memo Sent Date	
R/W Submittal Plans Recd	
Draft Document Target Date	07/20/2020
Draft Document Actual Date	

CE Review

Draft CE Review by ODOT	
Comments To Consultant	
Revised CE from Consultant	
CE to FHWA (if applicable)	
Date of FHWA / ODOT Approval of CE	
CE Distribution	

EA Review

Draft EA Review by ODOT	
Draft EA Review by FHWA	
Comments to Consultant	
Revised EA from Consultant	
Draft EA to FHWA	
Draft EA Approval by FHWA	
Final EA from Consultant	
Final EA Reviewed	
Final EA to FHWA	
FONSI from FHWA	
FONSI Distribution	

NEPA Document Navigation

- Recon
- Section 4F
- Public Involvement
- Re-Evaluation

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CE Document Checklist (Updated 11/24/2020)

Should be included in the Other Section of all projects

JP No:	32100(04)	Prepared by	L. Raderschadt
County:	Muskogee	Checked by	K. Saladis
Date Checked:	1/16/2022		
No	Description		Checked?
1	**Project Information**		
1.1	Correct Project No? (Check against Oracle info)		x
1.2	Correct NBI No.? - Check against initiation report, Oracle, and plans		x
1.3	Location No. for County projects only?		N/A
1.4	Correct Field District and County?		x
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)		x
1.6	Construction Program/STIP/TIP Checked?		x
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		Bridge project.
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.		N/A
2.3	Correct approach roadway width?		x
2.4	Any roadway geometric deficiencies?		x
2.5	Traffic data from plans - existing and projected?		x
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)		x
4	**Alternatives & Proposed improvement**		

4.1	Proposed roadway and bridge width	x
4.2	Existing or offset alignment – reason for offset	x
4.3	Replacement, Rehab, Removal or new bridge where there was none. Removal of bridge or wideing of bridge.	x
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)	Closed with signed detour.
4.5	Mention if everthing is within existing R/W	x
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	Early Coordination letters and public meeting materials
5	**CE Questions & Studies**	
5.1	Is the NEPA on Hold Memo included?	N/A
5.2	Are the R/W submittal or Final Plans with DATE STAMP included in the Plans & Footprint Section?	R/W plans dated February 2021
5.3	Did the preparer verify that the plans were within study limits?	x
5.4	Is the offset alignment far enough away so that R/W not immediately adjacent to existing R/W is needed?	N/A
5.5	Are the following early coordination letters and responses included in Early xoordination setion? (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	x

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	N/A
5.7	Are the studies arranged in the same order as the CE Questions?	x
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	x
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?	N/A
5.10	Was Section 6(f) properties verified with Dept. of Tourism for any parks?	N/A
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	No
5.12	Is the biological studies included and any notes for species included in the commitments.	x
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 (should be yes for all projects involving a bridge crossing a blue line).	It's been requested.
5.14	Does the project involve navigable waters (check USACE Section 10 waters and then verify wih Coastguard) and requires Coastguard coordination? If so, it it listed in the Commitment?	Yes
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"	No
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	x

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?	Within zone AE. Email dated 3/31/2021 indicated no need for a map revision.
5.18	Is the haz waste note mentioned and included at the end of the CE if applicable? If the haz waste specialist required plans to complete studies, were the plans provided and a revised memo obtained?	No plans requested. No notes needed.
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 and all the comments addressed by Field Division?	Bridge will be closed.
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, (5) Completed CE Review Checklist	x