ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

Scott E. Bennett Director Telephone (501) 569-2000 Voice/TTY 711



P.O. Box 2261 Little Rock, Arkansas 72203-2261 Telefax (501) 569-2400 www.arkansashighways.com

March 7, 2017

Mr. Angel Correa Division Administrator Federal Highway Administration 700 West Capitol, Room 3130 Little Rock, Arkansas 72201-3298

> Re: Job Number 061309 FAP Number PEN-3026(1) Bridge Number 01345 Mitzi Pkwy. – Hwy. 290 (Safety Impvts.) (Sel. Secs.) Hot Spring & Garland Counties Tier 3 Categorical Exclusion

Dear Mr. Correa:

The Environmental Division has reviewed the referenced project and it falls within the definition of the Tier 3 Categorical Exclusion as defined by the AHTD/FHWA Memorandum of Agreement on the processing of Categorical Exclusions. The following information is included for your review and, if acceptable, approval as the environmental documentation for this project.

The purpose of this project is to improve two sections of Highway 7 to increase safety by adding a center turn lane, widening the shoulders, and replacing minor drainage structures and the bridge over Sorrells Creek. Due to the high driveway density and intersections, crashes involving rear ends and angles are dispersed throughout this section of Highway 7. The three year average fatal and serious injury crash rates along this section is 19.16 per 100 million vehicle miles travelled (MVM) while the statewide average for similar facilities is 15.22 per 100 MVM. Providing a center turn lane would

AHTD Job Number 061309 Tier 3 Categorical Exclusion Page 2 of 4

reduce the number of crashes by as much as 36% for all crashes and 47% for rear end crashes. The total length of the project is 3.79 miles. A project location map is enclosed.

The existing roadway consists of two 12-foot wide paved travel lanes with 4-foot wide shoulders. The existing right of way width averages 80 feet. The existing bridge (#01345) is 32' x 26' with a concrete deck and arch. This bridge is functionally obsolete and has a sufficiency rating of 48.6.

Proposed improvements to Section 1 on Highway 7 will consist of two 12-foot wide paved travel lanes, a 12-foot wide center turn lane, and 6-foot wide shoulders. Proposed improvements to Section 2 will consist of two 12-foot wide paved travel lanes, a 12-foot wide center turn lane, and 8-foot wide shoulders. Section 2 will have a short section (1,217 feet) at the north end that will have curb and gutter with 5-foot sidewalks. The new right of way width will average 130 feet for both sections. The bridge over Sorrells Creek will be replaced by a double 10' x 10' x 102' reinforced concrete box culvert. Approximately 23.2 acres of additional right of way will be required for this project.

Design Year	Average Daily Traffic	Percent Trucks	Design Speed
2016	6,300	3*	50/55 mph
2036	7,600	3*	50/55 mph

Design data for this project is as follows:

*Historically, the truck traffic along this section has remained around 3% of the total traffic.

There are no environmental justice issues associated with this project. Field inspections found no evidence of existing underground storage tanks or hazardous waste deposits. Approximately 2.4 acres of Prime Farmland and 0.1 acre of Farmland of Statewide importance will be converted to highway right of way. Form NRCS-CPA-106 is enclosed.

One business may be relocated due to this project. Public Law 91-646, Uniform Relocation Assistance Act of 1970, as amended, will apply if the business is relocated.

The Sorrells Creek Bridge, State Historic Preservation Officer (SHPO) structure number GA0248, is a concrete closed spandrel arch bridge with a concrete railing carrying Highway 7 over Sorrells Creek constructed by an unknown builder in the early 1920s. In 1930, the West Arkansas Construction Company of McAlister, Oklahoma widened the bridge. The AHTD determined that the Sorrells Creek Bridge was eligible to be listed on the National Register of Historic Places (NRHP) as part of the 2006 AHTD Concrete and Masonry Arch Historic Bridge Inventory. As part of the AHTD Historic Bridge Process,

AHTD Job Number 061309 Tier 3 Categorical Exclusion Page 3 of 4

the Historic Bridge Analysis Committee met in March 2015 and it was determined that AHTD could not rehabilitate or reuse the bridge. The bridge was then marketed to federal, state, and local entities for reuse in its original location in a non-vehicular capacity. No entities were found willing to accept title for preservation of the historic bridge. Following the marketing period, a Memorandum of Agreement was executed by the Federal Highway Administration, the Arkansas Historic Preservation Program, and the Arkansas State Highway and Transportation Department, since no feasible or prudent alternative to demolition of the Sorrells Creek Bridge existed. A Programmatic 4(f) Evaluation is enclosed.

An old road segment was determined eligible for inclusion on the NHRP under Criterion A as structures that embody distinctive construction characteristics of early highway development and construction in Arkansas, SHPO structure number GA0900. A portion of the entrenched old road segment will be demolished by the construction of the proposed project. As mitigation for the adverse effect, the old road segment has been documented by the completion of an Arkansas Architectural Resource Form, digital color photographs, Global Positioning System location map, and the development of a written history. A Section 4(f) Evaluation is enclosed.

Based upon the AHTD's *Policy on Highway Traffic Noise Abatement*, a noise analysis is not required for this project. The project meets the criteria for a Type III project established in 23 CFR 772. Therefore, the project requires no analysis for highway traffic noise impacts. Type III projects do not involve added capacity, construction of new through lanes or auxiliary lanes, changes in the horizontal or vertical alignment of the roadway or exposure of noise sensitive land uses to a new or existing highway noise source. AHTD acknowledges that a noise analysis is required if changes to the proposed project result in reclassification to a Type I project.

Both Hot Springs and Garland counties lie within the consultation area of the federally listed northern long-eared bat (*Myotis septentrionalis*). Coordination with USFWS in April of 2016 concurred that the Final 4(d) Rule and the Programmatic Biological Opinion applies to this project's activities that have the potential to affect northern long-eared bats. The Final 4(d) Rule exempts the incidental take of northern long-eared bats from take prohibitions in the Endangered Species Act. The exemptions apply as long as the activities do not occur within 0.25 mile of a known hibernaculum or within 150 feet of a known occupied maternity roost from June 1 to July 31. No known hibernaculum or maternity roosts exist within the project limits; therefore, the project can proceed without restrictions. All offsite locations will require coordination with USFWS.

Permanent impacts to herbaceous wetlands are estimated at 1.0 acre, and impacts to forested wetlands are estimated at 0.1 acre. Impacts to waters of the United States resulting from the bridge replacement are estimated to be less than 0.2 acre, and

AHTD Job Number 061309 Tier 3 Categorical Exclusion Page 4 of 4

approximately 45 feet of an intermittent stream will be realigned to accommodate an extension to an existing box culvert. Total wetland impacts are estimated at 1.1 acres. The AHTD proposes the use of 7.2 wetland credits to mitigate the 1.1 acres of wetland impacts. The wetland credits will be mitigated at the Upper Saline Mitigation Bank located in Saline County. Construction of the proposed project should be allowed under the terms of a Nationwide Permit 23 for Approved Categorical Exclusions.

A public involvement meeting for this project was held on March 10, 2016 in Hot Springs, Arkansas. A public involvement synopsis is enclosed.

If you have any questions, please contact the Environmental Division at 569-2281.

APPROVED Environmental Specialist Federal Highway Administration 3/10/2017

Sincerely,

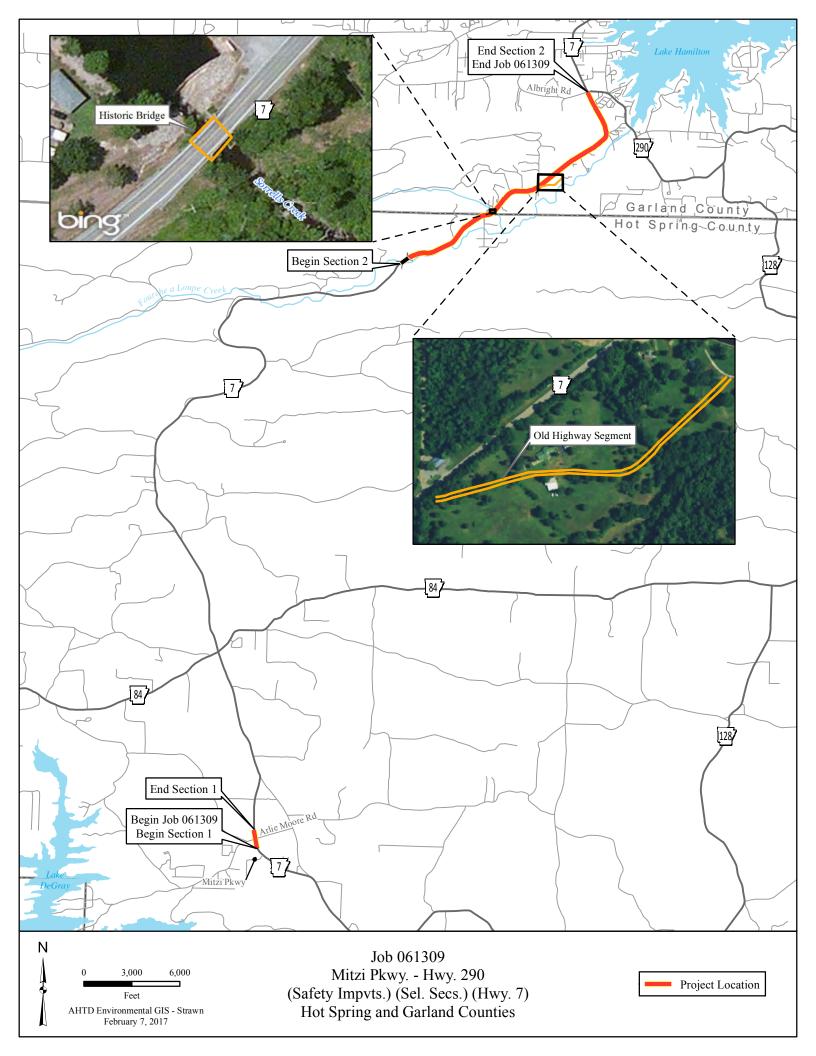
John Fleming

John Fleming Division Head Environmental Division

Enclosures

JF:JB:fc

c: Program Management Right of Way Roadway Design District 6 Master File





Asa Hutchinson Governor

> Stacy Hurst Director

Arkansas Arts Council

Arkansas Natural Heritage Commission

Arkansas State Archives

Delta Cultural Center

Historic Arkansas Museum

Mosaic Templars **Cultural Center**

Old State House Museum



ARKANSAS HISTORIC **PRESERVATION PROGRAM**



National Historic Preservation Act 1966-2016



1100 North Street Little Rock, AR 72201

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e-mail: info@arkansaspreservation.org website: www.arkansaspreservation.com

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December 1, 2016

RECEIVED AHTD

DEC 0 7 2016

DIVISION

Mr. John Fleming ENVIRONMENTAL **Division** Head Environmental Division Arkansas State Highway and Transportation Department P.O. Box 2261 Little Rock, AR 72203-2261

RE: Garland and Hot Spring Counties - General Section 106 Review – FHWA Report Titled: A Cultural Resources Survey of AHTD Job Number 061309 Mitzi PKWY. – HWY. 290 (Safety IMPVTS.) (SEL. SECS.) (S) Hot Spring and Garland Counties Arkansas AHTD Job Number: 061309 AHPP Tracking Number: 92020.05

Dear Mr. Fleming:

The staff of the Arkansas Historic Preservation Program (AHPP) has reviewed the above-referenced cultural resources survey report. Based on the information presented in this report we concur that the proposed undertaking will not impact site 3GA0116. We also concur with the recommendation that site 3GA1058 is not eligible for the National Register of Historic Places (NRHP) and requires no further work or avoidance by the proposed project.

We concur that 3GA1059 is eligible for the NRHP. Furthermore we understand that it cannot be avoided and the continuation of the undertaking will constitute an adverse effect. In order to mitigate the adverse effect to 3GA1059 a Memorandum of Agreement (MOA) will be required as per 36 CFR § 800.6(b)(1)(i-iv).

Thank you for the opportunity to review this undertaking and we look forward in developing a MOA for site 3GA1059. Please refer to the AHPP Tracking Number listed above in all correspondence. If you have any questions, please call Tim Dodson of my staff at 501-324-9784.

Sincerely,

Eranus M Swen

Frances McSwain Deputy State Historic Preservation Officer

Mr. Randall Looney, Federal Highway Administration cc: Ms. Tamara Francis-Fourkiller, Caddo Nation Ms. Karen Brunso, The Chickasaw Nation Dr. Ian Thompson, Choctaw Nation of Oklahoma

Dr. Andrea Hunter, Osage Nation Mr. Everett Bandy, Quapaw Tribe of Oklahoma Ms. Kim Jumper, Shawnee Tribe of Oklahoma

Dr. Ann Early, Arkansas Archeological Survey

U.S. DEPARTMENT OF AGRICULTURE

2. Type of Project

5. Major Crop(s)

Natural Resources Conservation Service

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

3. Date of Land Evaluation Request 12/13/16 PART I (To be completed by Federal Agency) Job 061309 Sheet 1 of 5. Federal Agency Involved FHWA Mitzi Pkwy - Hwy 290 (Safety Impvts.) (Sel. Secs.) 1. Name of Project (Safety Impyts.) 6. County and State Hot Spring & Garland AR. 2. Person Completing Form PART II (To be completed by NRCS) 1. Date Request Received by NRCS 4. Acres Irrigated Average Farm Size 3. Does the corridor contain prime, unique statewide or local important farmland? YES NO (If no, the FPPA does not apply - Do not complete additional parts of this form). 7. Amount of Farmland As Defined in FPPA. 6. Farmable Land in Government Jurisdiction Acres: Acres: % 10. Date Land Evaluation Returned by NRCS 8. Name Of Land Evaluation System Used 9. Name of Local Site Assessment System **Alternative Corridor For Segment** PART III (To be completed by Federal Agency) Alternative 1 Alternative 2 Alternative 3 Alternative 4 A. Total Acres To Be Converted Directly B. Total Acres To Be Converted Indirectly, Or To Receive Services C. Total Acres In Corridor PART IV (To be completed by NRCS) Land Evaluation Information A. Total Acres Prime And Unique Farmland 2.4 14.0 13.0 .1 B. Total Acres Statewide And 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 Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points) PART VI (To be completed by Federal Agency) Corridor Maximum Assessment Criteria (These criteria are explained in 7 CFR 658.5(c)) Points 1. Area in Nonurban Use 15 5 5 5 2. Perimeter in Nonurban Use 10 5 5 5 5 5 5 3. Percent Of Corridor Being Farmed 20 4. Protection Provided By State And Local Government 20 0 0 0 5. Size of Present Farm Unit Compared To Average 10 0 0 0

0

5

0

0

5

0

0

5 0

8. On-Farm Investments	20	0	0	0	
9. Effects Of Conversion On Farm Support Services	25	0	0	0	
10. Compatibility With Existing Agricultural Use	10	0	0	0	
TOTAL CORRIDOR ASSESSMENT POINTS	160	20	20	20	
PART VII (To be completed by Federal Agency)					Τ
Relative Value Of Farmland (From Part V)	100	100	100	100	
Total Corridor Assessment (From Part VI above or a local site assessment)	160	20	20	20	
TOTAL POINTS (Total of above 2 lines)	260	145	120	120	
1. Corridor Selected: New 2. Total Acres of Farmlands to be Converted by Project: 2.4 acres of Prime Farmland & .1 Statewide Importance	3. Date Of S	election:	4. Was A Local Si		sed?

25

5

20

5. Reason For Selection:

Signature of Person Completing this Part:

6. Creation Of Nonfarmable Farmland 7. Availablility Of Farm Support Services

NOTE: Complete a form for each segment with more than one Alternate Corridor

DATE 17

NRCS-CPA-106

(Rev. 1-91)

PROGRAMMATIC SECTION 4(F) EVALUATION FOR FEDERALLY-AIDED HIGHWAY PROJECTS THAT NECESSITATE THE USE OF HISTORIC BRIDGES

SORRELLS CREEK BRIDGE

AHTD JOB NUMBER 061309 FAP NUMBER PEN-3025(1) MITZI PKWY-HWY 290 (SAFETY IMPVTS.)(SEL. SECS.) AHTD BRIDGE NUMBER 01345 HOT SPRING & GARLAND COUNTIES

SUBMITTED PURSUANT TO 49 U.S.C. SECTION 303 AND 23 U.S.C. SECTION 138 BY THE U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION AND THE ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

FEBRUARY 2017

1 Why is this report being prepared?

Section 4(f) of the Department of Transportation Act of 1966 declared that it is national policy to make a special effort to preserve the natural beauty of the countryside, public parks and recreations lands, wildlife and waterfowl refuges, and historic sites. The current Section 4(f) legislation permits the Secretary of Transportation to approve a project that requires the use of certain historic bridge structures to be replaced or rehabilitated with Federal funds only if a determination has been made that there is no feasible and prudent alternative to the use of the property and all possible planning has been undertaken to minimize harm to the property resulting from such use. These determinations, submitted pursuant to 49 U.S.C. Section 303 and 23 U.S.C. Section 138, are set forth in this Section 4(f) Evaluation.

2 What would the project accomplish?

The Arkansas State Highway and Transportation Department (AHTD), in conjunction with the Federal Highway Administration (FHWA), is proposing to add a continuous center turn lane and widen shoulders on Highway 7 through the project area to improve safety and meet the transportation needs in Hot Spring and Garland Counties, Arkansas. As part of the project, a historic bridge across Sorrells Creek will be replaced.

AHTD Bridge Number 01345 consists of a one-span concrete deck arch. The total length of the bridge is 32 feet with a clear deck width of 26 feet. The AHTD inspection dated October 1, 2015, rated the deck as satisfactory (6), the superstructure as satisfactory (6), and the substructure as fair (5). The bridge carries two 12-foot travel lanes with no shoulders and has a calculated sufficiency rating of 48.6. It does not meet current design standards and is classified as Functionally Obsolete. A double 10' x 10' x 102' reinforced concrete box culvert will replace the bridge.

3 What Section 4(f) properties are being impacted?

AHTD Bridge Number 01345 (Sorrells Creek Bridge also known as Sorrel Creek Bridge) consists of a one-span, closed spandrel, concrete deck arch bridge (Figure 1). AHTD determined that the bridge was eligible for inclusion on the National Register of Historic Places (NRHP) in 2006 as part of the AHTD Concrete and Masonry Arch Historic Bridge Inventory. An unknown builder constructed the Sorrells Creek Bridge in the early 1920s. The West Arkansas Construction Company of McAlister, Oklahoma widened the bridge by 8 feet in 1930. The Sorrells Creek Bridge is one of 41 closed spandrel, concrete, deck arch bridges still in service. While this bridge is eligible to the NRHP, it is not considered a National Historic Landmark.

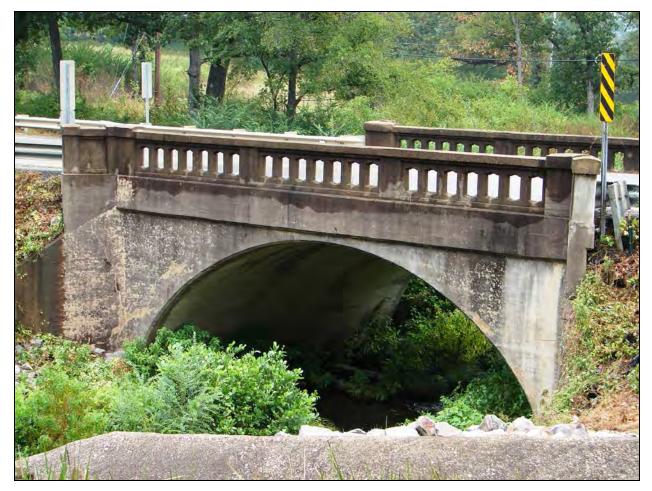


Figure 1. AHTD Bridge Number 01345

4 Does this project qualify to use the Section 4(f) programmatic for historic bridges?

This programmatic Section 4(f) evaluation may be applied by the FHWA to projects that meet the criteria shown in Table 1.

Table 1 Criteria To Use Programmatic Section 4(f) Evaluation For Federally-Aided Highway Projects That Necessitate The Use of Historic Bridges		
The bridge is to be replaced or rehabilitated with Federal funds.	\checkmark	
The project will require the use of a historic bridge structure that is on or is eligible for listing on the NHRP.	\checkmark	
The bridge is not a National Historic Landmark.		
The FHWA Division Administrator determines that the facts of the project match those set forth in the FHWA Section 4(f) Policy Paper issued March 1, 2005.		
Agreement has been reached among the FHWA, SHPO, and the Advisory Council on Historic Preservation through procedures pursuant to Section 106 of the National Historic Preservation Act.	\checkmark	

5 Could the project avoid demolishing the historic bridge?

In order for a Programmatic Section 4(f) Evaluation That Necessitate the Use of Historic Bridges to be applied to a project, each of the following findings; 1) No-Action, 2) Build on New Location and Retain the Existing Structure, and 3) Rehabilitation of the Existing Structure, must be supported by the circumstances, studies, and consultations on the project.

To this effect, a Historic Bridge Analysis Committee has been established by AHTD to evaluate viable alternatives for the preservation of historically significant bridges through retention or rehabilitation or to justify their removal, if required. The following alternatives to avoid any use of the historic bridge were evaluated to determine if there was a feasible and prudent alternative to the proposed impacts to the historic bridge.

No-Action

This alternative consists of no improvements to the existing facilities and would continue to provide only routine maintenance. The Sorrells Creek Bridge is functionally obsolete and has a sufficiency rating of 48.6. This alternative does nothing to improve the existing roadway width of the bridge and would not alleviate the safety issues. With increasing traffic and no improvements to the bridge, safety will continue to decrease. Therefore, with the safety and operational problems that exist, this is not a prudent alternative.

Build on New Location and Retain the Existing Structure

<u>The New Location Alternative One</u> would require the construction of a new one-lane bridge or box culvert and retain the existing bridge, with the new structure and historic span carrying one lane of traffic each. Substantial work would be required to meet minimum crash barrier requirements. The work required to meet minimum design standards would alter the historic integrity of the historic bridge. The roadway would need to be split and rejoined for a couplet bridge or box culvert alternative, increasing safety issues due to the close proximity of the driveway to the Mill Pond Village. Additional space would be required between the new structure and historic span for construction and inspection of the existing bridge. This alternative would involve an increased project footprint and increase the cost of the project. The maintenance and inspection costs would be higher over the long term than the costs for a new three-lane structure therefore; this is not a prudent alternative.

<u>The New Location Alternative Two</u> would require the construction of a three-lane structure on new location with the historic span retained by the AHTD or another entity. It is the policy of the Arkansas Highway Commission not to retain bridges that are not in

use on active roadways due to the increased legal liability. Therefore, the AHTD determined that it would not be willing to retain the ownership of the bridge. Marketing was then performed to find an entity that would be willing to accept ownership of the bridge for preservation in place (see Appendix A for marketing correspondence). No responsible party was found willing to maintain and preserve the bridge in the current location. The New Location Alternative proved unsatisfactory because no entity was found willing to accept title for the bridge in the current location. Therefore, this is not a prudent alternative.

Rehabilitation of the Existing Structure

The Rehabilitation Alternative would upgrade the existing bridge to the minimum required design standards. To meet the minimum design standards required for a rural two lane roadway with a center turn lane, the bridge would have to be widened from a 26-foot clear roadway to a 36-foot clear roadway with two eight-foot shoulders. This would entail widening the existing bridge to double its current width, thus altering its architectural integrity; the design is the major factor in the eligibility of the bridge to the NRHP. Although the bridge has been widened in the past (1930), the modification is greater than 50 years; hence, the previous widening is part of the bridge's history. Any attempt to widen the bridge at this point in time would impact its historic integrity. Therefore, this is not a prudent alternative.

6 How will the AHTD mitigate for the harm being done to historic properties?

Agreement between FHWA and the SHPO has been reached through the Section 106 process (36 CFR 800) of National Historic Preservation Act (16 U.S.C. 470) on measures to minimize harm and these measures have been incorporated into this project. Through a Memorandum of Agreement (MOA), it was agreed that AHTD Bridge Number 01345 would be documented to the Arkansas Historic Preservation Program's (AHPP)

architectural documentation standards and then demolished. A copy of the MOA can be found in Appendix B.

7 What are the findings of the alternatives analysis and this evaluation?

Table 2 contains a summary of the analysis and decision-making information included in this evaluation.

Table 2 Section 4(f) Analysis Summary				
Alternative	Feasible	Prudent	Uses Section 4(f) Property	Harm to Section 4(f) Property
No-Action	Yes	No	No	None
New Location One	Yes	No	Yes	Adverse Effect
New Location Two	Yes	No	Yes	Adverse Effect*
Rehabilitation	Yes	No	Yes	Adverse Effect

* No entity was found willing to take title for the bridge.

8 What are the recommendations moving forward on this project?

It is the recommendation of the AHTD that the historic bridge be documented to AHPP architectural documentation standards and demolished as agreed to under the MOA (Appendix B).

The above documentation illustrates that the proposed project complies with all requirements of the Programmatic Section 4(f) Evaluation for federally-aided highway projects, which require the use of a historic bridge.

APPENDIX A

MARKETING CORRESPONDENCE

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

Scott E. Bennett Director Telephone (501) 569-2000 Voice/TTY 711



P.O. Box 2261 Little Rock, Arkansas 72203-2261 Telefax (501) 569-2400 www.arkansashighways.com

Date

«Name» «Title_» «Agency» «Address_1» «Address_2» «Address_3» «City»

> Subject: Historic Bridge 01345 AHTD Job Number 061309 So. of Hot Spring/Garland Co. Ln. – Hwy. 290 (S) Garland County

Dear «Greeting»:

The Arkansas State Highway and Transportation Department is planning to replace Bridge Number 01345 (Sorrells Creek Bridge) on Highway 7 in Garland County. This bridge was determined eligible to the National Register of Historic Places (NRHP) as part of the AHTD's 2006 Concrete and Masonry Arch Historic Bridge Inventory.

The Moving Ahead For Progress in the 21st Century (MAP-21) Act, 23 USC § 144 (g) (5) states: "Any State that proposes to demolish a historic bridge for a replacement project ... shall first make the historic bridge available for donation to a State, locality, or responsible private entity." As part of the mitigation process, the AHTD is offering Bridge Number 01345 for donation to any government or entity that demonstrates a willingness to accept title for, preserve the historic integrity of and assume the financial responsibility for the continued maintenance on the structure.

AHTD will reimburse costs associated with preservation that could include modifications for recreational use (this bridge is not a candidate for relocation). The cost reimbursement to be determined by the Federal Highway Administration will not exceed 100 % of the cost of demolition of the bridge, which will be based on the estimate of the AHTD.

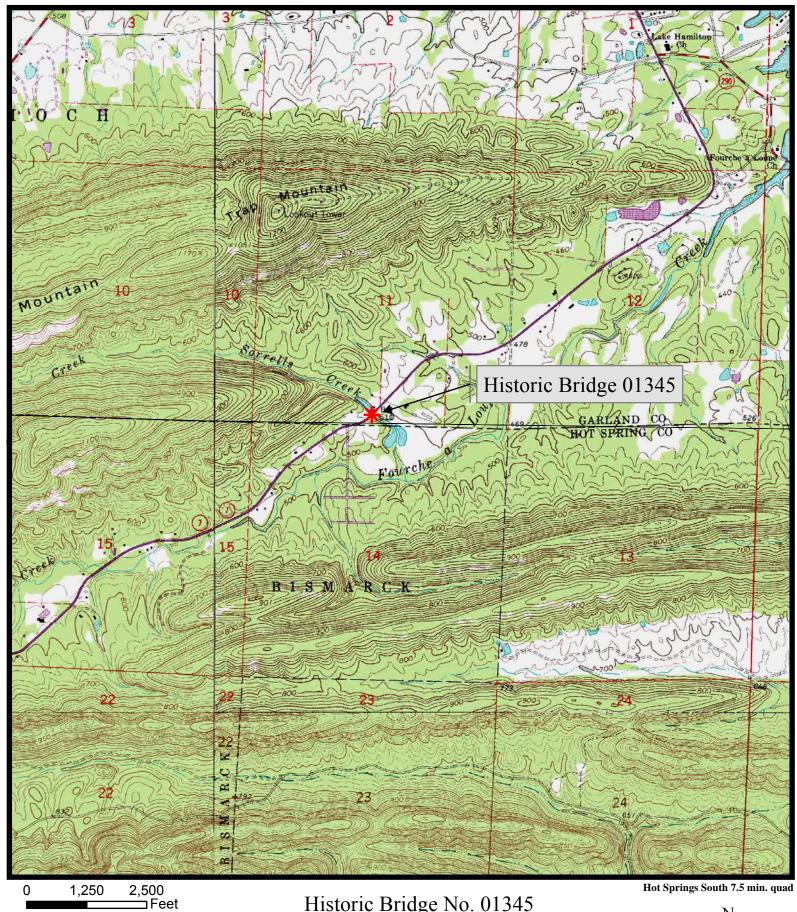
If you are interested in acquiring this bridge, please respond with a letter of interest within 45 days of receipt of this letter. For further information contact Robert Scoggin at (501) 569-2077.

Sincerely,

John Fleming Division Head Environmental Division

LM:DW:RS:jh

c: Assistant Chief Engineer for Planning Rick Ellis – Bridge Division Head District Six Engineer FHWA



RWS 3/20/15

Historic Bridge No. 01345 AHTD Job Number 061309 So. of Hot Spring/Garland Co. Ln. – Hwy. 290 (S) Garland County

Ν

Marketing Letter Recipients

Name	Title	Agency
Colonel Jeffery R. Eckstein	Commander District Engineer	U.S. Army Corps of Engineers
Mr. Mike Knoedl	Director	Arkansas Game and Fish Commission
Ms. Stacy Hurst	Director	Department of Arkansas Heritage
Mr. Richard Davies	Director	Department of Parks and Tourism
Mr. Timothy G. Nutt	President	Arkansas Historical Association
Honorable John C. Edwards	President	Historic Preservation Alliance of Arkansas
Honorable Rick Davis	Garland County Judge	
Ms. Liz Robbins	Executive Director	Garland County Historical Society
Mr. Mark Gregory	Managing Editor	The Sentinel-Record



Asa Hutchinson Governor

> Stacy Hurst Director

Arkansas Arts Council

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. Old State House Museum



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March 27, 2015

John Fleming AHTD P.O. Box 2261 Little Rock, AR 72203-2261

Dear Mr. Fleming:

This letter is to acknowledge your letter dated March 20, 2015, regarding Historic Bridge 01345 in Garland County, was received in my office.

The information is being reviewed by the historic preservation department for review and comments.

SH:el

RECEIVED AHTD MAR 3 0 2015 ENVIRONMENTAL DIVISION

APPENDIX B

MEMORANDUM OF AGREEMENT

MEMORANDUM OF AGREEMENT

AMONG THE FEDERAL HIGHWAY ADMINISTRATION, THE ARKANSAS STATE HISTORIC PRESERVATION OFFICER AND THE ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT REGARDING

AHTD JOB NUMBER 061309 SOUTH OF HOT SPRING/GARLAND COUNTY LINE – HIGHWAY. 290 (S) HIGHWAY 7, GARLAND COUNTY, ARKANSAS AHTD BRIDGE NUMBER 01345

WHEREAS, the Federal Highway Administration (FHWA) and the Arkansas State Highway and Transportation Department (AHTD) wish to construct a new bridge across Sorrells Creek on Highway 7 in Garland County, Arkansas, to improve safety and the transportation needs in central Arkansas; and the old Sorrells Creek Bridge (AHTD Number 01345) (historic bridge) will be demolished for construction of a new bridge at its location; and

WHEREAS, the historic bridge is a property determined eligible for inclusion on the National Register of Historic Places (NRHP); and

WHEREAS, through the Programmatic Section 4(f) Evaluation process the FHWA has determined that no feasible and prudent alternative to the demolition of the historic bridge exists; and

WHEREAS, the FHWA has marketed the historic bridge to federal agencies, the Garland County Judge, local governments, and the historic society in Garland County, Arkansas; and

WHEREAS, no entities were found willing to accept title for preservation of the historic bridge at its current location or reuse at another location; and

WHEREAS, the FHWA has determined that this undertaking will have an adverse effect on a property eligible for listing in the NRHP and in accordance with 36 Code of Federal Regulations (CFR) Part 800, regulations implementing Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. 470f), must address this effect; and

WHEREAS, the definitions set forth in 36 CFR Part 800 are applicable throughout this Memorandum of Agreement (MOA); and

NOW THEREFORE, the FHWA and the State Historic Preservation Officer (SHPO) agree that the undertaking shall be implemented in accordance with the following

AHTD Job Number 061309 Memorandum of Agreement Page 2 of 7

stipulations in order to take into account the adverse effect of this undertaking on the historic property.

STIPULATIONS

The FHWA, through the AHTD, will ensure that the following stipulations are carried out.

- I. MITIGATION OF ADVERSE EFFECT TO THE HISTORIC PROPERTY: (Sorrells Creek Bridge)
 - 1. The FWHA will produce architectural documentation for the historic bridge that meets the Secretary of the Interior's *Standards and Guidelines for Archeology and Historic Preservation* set forth in 48 CFR 44716. The AHPP 2009 Survey Procedures Manual: Guidelines for Historic and *Architectural Surveys in Arkansas* shall be followed in producing the architectural documentation. Documentation will include completion of an Arkansas Architectural Resources Form and color digital photographs of the bridge.
 - 2. The documentation will be curated at the Arkansas Historic Preservation Program (AHPP), the AHTD, the Arkansas History Commission, and the Torreyson Library at the University of Central Arkansas.
 - 3. The historic bridge will be laser scanned and a 3-dimensional digital model of the bridge will be created and housed in the Historic Bridge Program Section of the AHTD website.
 - 4. No construction will be undertaken on the historic bridge until all fieldwork portions of the required mitigation have been completed.
 - 5. The FHWA shall ensure that adequate time and funding are provided in order to carry out all aspects of the required mitigation.

II. HUMAN REMAINS

Human remains are not expected to be discovered on this undertaking; however, if they are encountered during implementation of the project, all activity in the vicinity of the discovery shall cease. The treatment of human remains shall follow the guidelines developed for the *Arkansas Burial Law* (Act 753 of 1991, as amended) and the Advisory Council on Historic Preservation's *Policy Statement Regarding Treatment of Burial Sites, Human Remains, and Funerary Objects* published February 23, 2007.

III. DURATION

This MOA will remain in effect for a period not to exceed ten years from the date of ratification, or until the proposed construction is complete. It may be extended by agreement of all the signatories.

IV. PROFESSIONAL QUALIFICATIONS STANDARDS

The FHWA shall ensure that all archeological investigations and other historic preservation activities to this MOA are carried out by, or under the direct supervision of, a person or persons meeting the appropriate qualifications set forth in the Secretary of the Interior's professional qualification standards (48 CFR 44739).

V. ARCHEOLOGICAL FIELDWORK AND REPORT STANDARDS

All archeological field work and report writing shall follow the Secretary of the Interior's *Standards and Guidelines for Archeology and Historic Preservation* (48 CFR 44716-39) and *A State Plan for the Conservation of Archeological Resources in Arkansas* (Davis and Early 2010).

VI. POST-REVIEW DISCOVERY SITUATIONS

Pursuant to 36 CFR Part 800.13, if cultural material is discovered during implementation of the project, the FHWA shall ensure that all construction activities cease in the area of the discovery and the consulting parties are notified. The FHWA and the SHPO shall determine if the discovery is eligible for inclusion in the National Register of Historic Places. If so, the FHWA and the AHTD will develop a treatment plan for historic properties which shall be reviewed and approved by the SHPO. Disputes arising from such review shall be resolved in accordance with Stipulation VII.

VII. DISPUTE RESOLUTION

Should the SHPO or any consulting party object within thirty (30) calendar days to any findings, proposed actions or determinations made pursuant to this MOA, the FHWA shall consult with the objecting party to resolve the objection. If the FHWA determines that the objection cannot be resolved, it shall request further comments from the Advisory Council on Historic Preservation (Council) pursuant to 36 CFR Part 800.7. Any Council comment provided in response to such a request shall be taken into account by the FHWA in accordance with 36 CFR 800.7 with reference only to the subject of the dispute; the FHWA responsibility to AHTD Job Number 061309 Memorandum of Agreement Page 4 of 7

carry out all actions under this MOA that are not subject to dispute shall remain unchanged.

VIII. MONITORING

The consulting parties or one or more parties in cooperation may monitor the undertaking and stipulations carried out pursuant to this MOA.

IX. AMENDING THE MEMORANDUM OF AGREEMENT

Should any of the signatories to this MOA believe that the terms of this MOA are not being met or cannot be met, that party shall immediately notify the other signatories and request consultation to amend this MOA in accordance with 36 CFR Part 800. The process to amend this MOA shall be conducted in a manner similar to that leading to the execution of this MOA.

X. TERMINATING THE MEMORANDUM OF AGREEMENT

Any signatory to this MOA may terminate it by providing thirty (30) calendar days notice to the other parties provided that the parties shall consult during the period prior to termination to seek agreement on amendments or other actions that would avoid termination. In the event of termination, the FHWA shall comply with 36 CFR Part 800.4 through 800.6 with regard to the undertaking covered by this MOA.

XI. FAILURE TO CARRY OUT THE MEMORANDUM OF AGREEMENT

In the event the FHWA does not carry out the terms of the MOA, the FHWA shall comply with 36 CFR Part 800.4 through 800.6 with regard to the undertaking covered by this MOA.

XII. FULFILLMENT OF SECTION 106 RESPONSIBILITIES

Execution and implementation of this MOA evidences that the FHWA has afforded the ACHP a reasonable opportunity to comment pursuant to 36 CFR Part 800 on the proposed replacement of the National Register eligible Sorrells Creek Bridge in Garland County, Arkansas and its effect on the historic property, and the FHWA has taken into account the effect of the undertaking on the historic property.

AHTD Job Number 061309 Memorandum of Agreement Page 5 of 7

Signatory

FEDERAL HIGHWAY ADMINISTRATION

U

Sandra Otto Arkansas Division Administrator

June 9, 2015

Date

AHTD Job Number 061309 Memorandum of Agreement Page 6 of 7

Signatory

ARKANSAS STATE HISTORIC PRESERVATION OFFICER

5-14-15

Stacy Hurst Arkansas State Historic Preservation Officer

Date

AHTD Job Number 061309 Memorandum of Agreement Page 7 of 7

Signatory

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

Kennel

Scott E. Bennett, P.E. Director of Highways and Transportation

6-1-15 Date

KOT MEB

DRAFT

SECTION 4(F) EVALUATION FOR FEDERALLY-AIDED HIGHWAY PROJECTS

OLD HIGHWAY SEGMENT

AHTD Job Number 061309 FAP Number PEN-3026(1) Mitzi Pkwy. – Hwy. 290 (Safety Impvts.) (Sel. Secs.) Hot Spring & Garland Counties

Submitted Pursuant to 49 U.S.C. Section 303 and 23 U.S.C. Section 138 by the U.S. Department of Transportation Federal Highway Administration and the Arkansas State Highway and Transportation Department

February 2017

Introduction

The Secretary of Transportation may approve a project that requires the use of land from a significant publicly-owned public park, recreation area, wildlife/waterfowl refuge, or any historic site of national, state, or local significance only if the following determinations have been made: (1) there is no feasible and prudent alternative to the use of such land; and (2) all possible planning has been undertaken to minimize harm to the property resulting from such use. These determinations, submitted pursuant to 49 U.S.C. Section 303 and 23 U.S.C. Section 138, are set forth in a Section 4(f) Evaluation.

Project Information

The Arkansas State Highway and Transportation Department (AHTD), in cooperation with the Federal Highway Administration (FHWA), is proposing a highway project located in Hot Spring and Garland Counties, Arkansas. This project would consist of two 12-foot wide paved travel lanes, a 12-foot wide center turn lane, and 6'-8'foot wide shoulders. These improvements would be located on Highway 7 between the cities of Arkadelphia and Hot Springs. Figure 1 illustrates the project area. The project is 3.79 miles in length and would be constructed on existing location with a right of way width averaging 130 feet.

Currently, the roadway consists of two 12-foot paved travel lanes with 4-foot shoulders. The existing right of way width averages 80 feet.

Purpose and Need

The purpose of this project is to improve safety by providing a center turn lane and wider shoulders. Due to the high driveway density and intersections, crashes involving rear ends and angles are dispersed throughout this section of Highway 7. The 3-year average fatal and serious injury crash rate along this section is 19.16 per 100 million miles travelled (MVM) while the statewide average for similar type facilities is 15.22 per 100

(MVM). Providing a center turn lane would reduce the number of crashes by as much as 36 % for all crashes and 47% for rear end crashes.

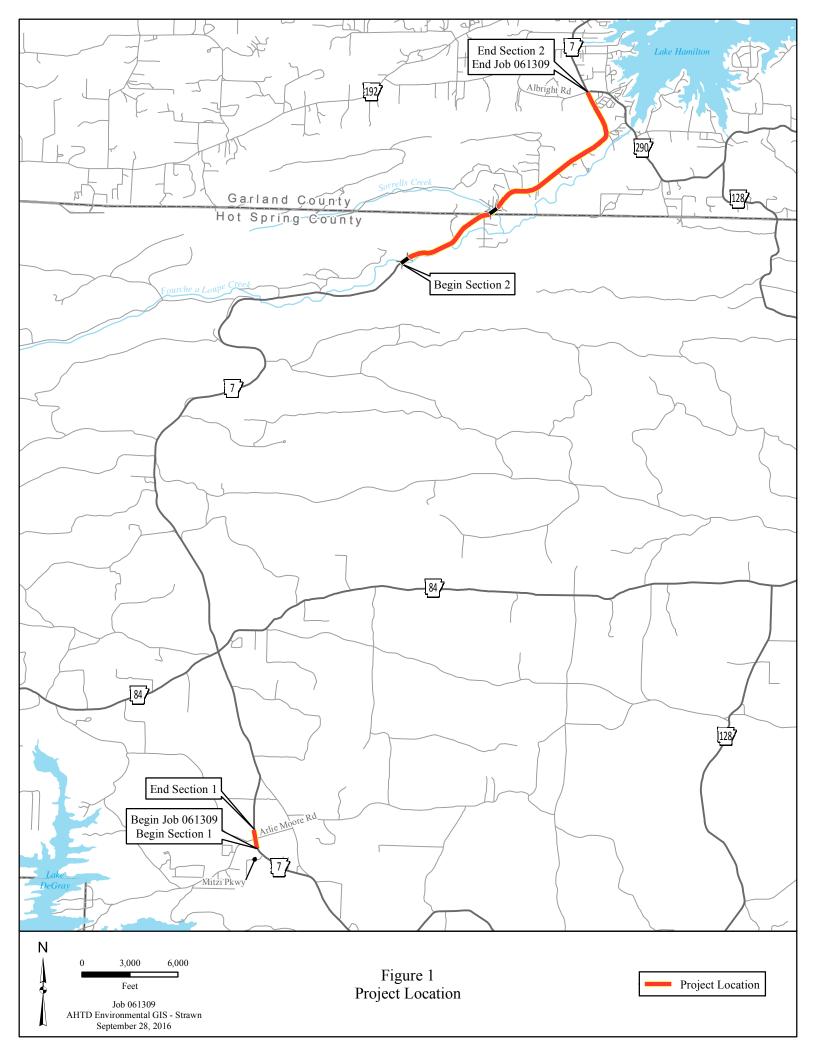
Land use along Highway 7 from Arkadelphia to Hot Springs is predominantly rural with scattered residences and an occasional small business located adjacent to the existing roadway. The majority of the land use is either residential, pasture or undeveloped woodland.

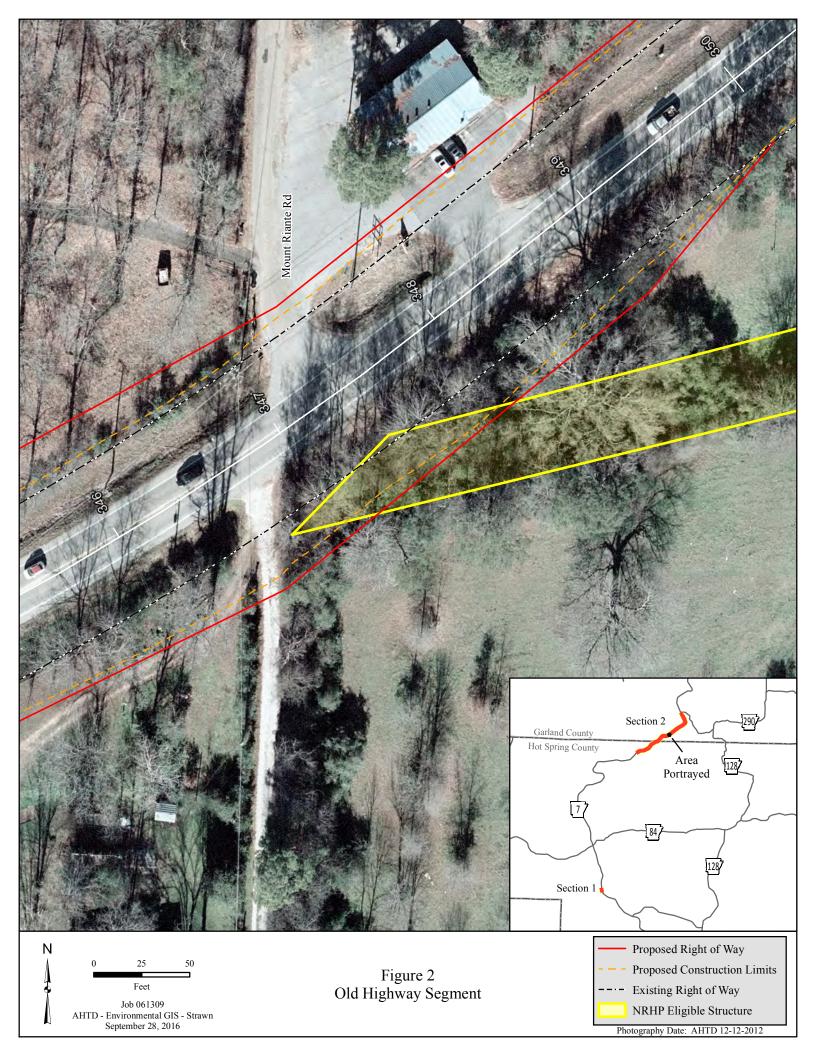
Description and Significance of Section 4(f) Property

One Section 4(f) property impacted by this project (hereafter called Old Highway Segment) is a 472-foot long segment of an abandoned highway located south of Highway 7. It is associated with the 1916 Federal Aid Road Act that created the Bankhead Highway. The Old Highway Segment was determined eligible for inclusion on the National Register of Historic Places (NRHP) under Criterion A for supporting the history of transportation in Arkansas. Figure 2 illustrates the location of the Old Highway Segment.

The Old Highway Segment dates from the latter half of the 19th century. It is located just south of the existing Highway 7 corridor and was bypassed by the existing highway between 1947 and 1955. The west end of the segment has been impacted by the Highway 7 corridor and the road disappears towards the east. The level travel surface of the Old Highway Segment is entrenched approximately 5 feet below natural ground level and is between 13-feet to 15-feet wide with ditches between 5-feet and 6-feet wide. Portions of the road have been impacted by erosion.

The Old Highway Segment was identified during a routine structural survey of the project area, when the AHTD submitted a Request for Technical Assistance (RTA) on potentially historic properties along the route to architectural historians at the Arkansas Historic Preservation Program (AHPP) for review and evaluation. The RTA, dated May 6, 2016, is included in Appendix A.





Alternatives/Findings

The Section 4(f) alternatives were evaluated for only that portion of the project where the design needed to change to avoid the historic structure; they do not include other portions of the project. Alternatives were evaluated to determine if there was a feasible and prudent alternative to the proposed taking of the Old Highway Segment. An Avoidance Alternative was developed that would avoid the Section 4(f) structure. This alternative and its impacts, as well as the No-Action Alternative and the Preferred Alternative, are discussed in the following synopsis. The Avoidance Alternative and the Preferred Alternative 3.

No-Action

The No-Action Alternative would leave Highway 7 as it exists and involve only routine maintenance to the existing facilities. The No-Action Alternative would result in no impacts to the historic structure. Although the No-Action Alternative is feasible, it is not prudent because it would not improve safety, and thus would not meet the purpose and need of the project.

Avoidance Alternative

The Avoidance Alternative consists of the same cross-section discussed in the Project Information section for the Preferred Alternative. Avoidance of the Section 4(f) structures would be accomplished by shifting the roadway centerline approximately 50 feet to the north of the existing centerline away from the historic resource. The Old Highway Segment would be left in place by this alternative. While this alternative is feasible, it is not considered prudent, because shifting the roadway to avoid the Old Highway Segment would result in the relocation of one residential owner, one residential tenant, one business, and one landlord business.

The Avoidance Alternative would result in an approximate cost of \$19.0 million (an additional cost \$1.2 million over the Preferred Alternative), increase the original total project cost by 7% and require 3.7 acres of additional right of way.

An avoidance alternative could not be developed that would avoid the historic resource by going on the south side of Highway 7 and around the Old Highway Segment due to the considerable new length of roadway that would be required and the associated impacts that would result.

Preferred Alternative

The Preferred Alternative would utilize the existing highway centerline in the vicinity of the Old Highway Segment (Figure 3). This alternative consists of widening the existing roadway as describe in the Project Information section, would cost approximately \$17.8 million and would require 1.8 acres of additional right of way.

This alternative is considered feasible and prudent because it would not result in any residential or business relocations in the vicinity of the Old Highway Segment.

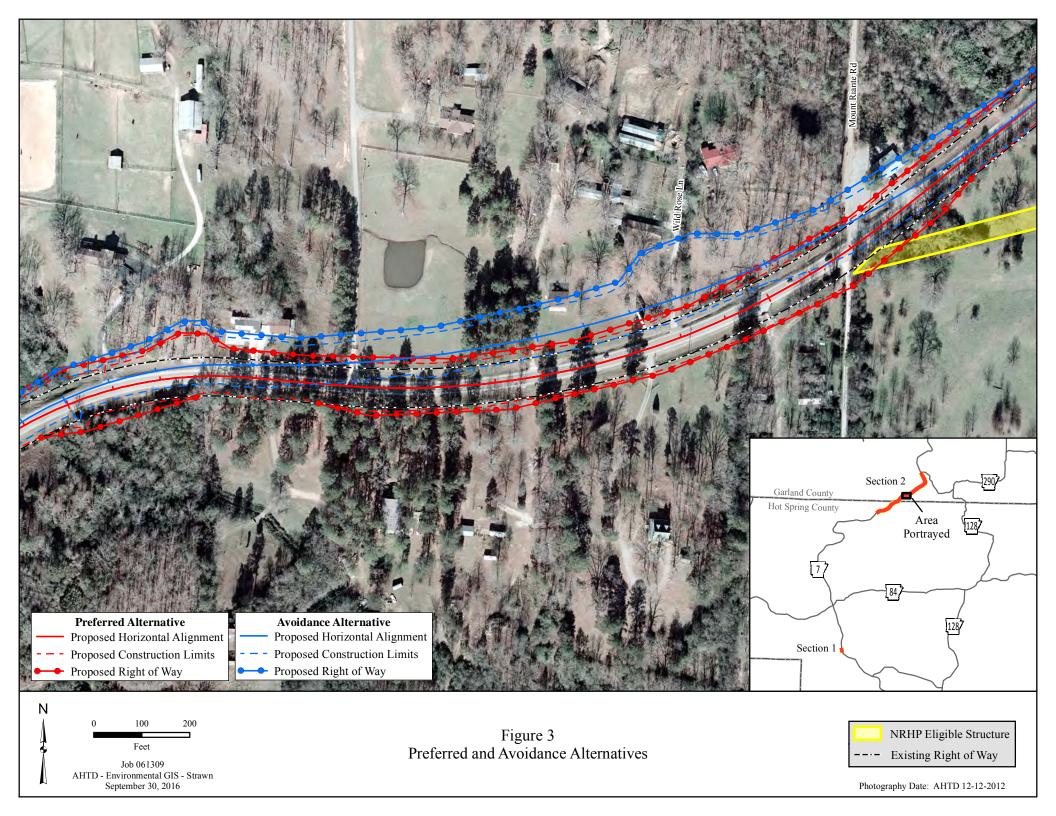
Coordination

After the identification of the Old Highway Segment as being eligible for the NRHP, the AHTD requested guidance from the State Historic Preservation Officer (SHPO) on appropriate mitigation for the acquisition and demolition of the Old Highway Segment. The SHPO indicated that mitigation for the property would require the measures to minimize harm outlined in the next section.

Measures to Minimize Harm

Agreement between the FHWA and the SHPO has been reached through the Section 106 process (36 CFR 800) of the National Historic Preservation Act (16 U.S.C. 470) on measures to minimize harm, and these measures have been incorporated into this project. A copy of the Memorandum of Agreement can be found in Appendix B.

The SHPO indicated that the acquisition and demolition of the Section 4(f) properties would require completion of an Arkansas Architectural Resource Form, digital color photographs, Global Positioning System (GPS) location map and development of a



written history for the historic roadway. This documentation will be completed and submitted for acceptance by the SHPO and the Registrar of the Arkansas Archeological Survey as mitigation for the acquisition and demolition of the historic properties through a Memorandum of Agreement between the FHWA and AHPP.

<u>Summary</u>

Table 1 contains a summary of the analysis and decision-making information included in this evaluation.

Table 1 Section 4(f) Alternative Analysis Summary						
	No-Action	Avoidance Alternative	Preferred Alternative			
Feasible	Yes	Yes	Yes			
Prudent	No	No	Yes			
Uses Section 4(f) Property	No	No	Yes			
Harm to Section 4(f) Property (With Mitigation)	None	None	Impacts Structure*			
Impacts**	None	4 relocations	No relocations			

*This Alternative yielded a determination that any adverse effect was mitigated by the architectural documentation in accordance with the AHPP's standards.

**These estimates represent only that portion of the project that would change to avoid the Section 4(f) Structures. They do not represent cost, right of way, or impacts for the entire project.

Conclusion

Based upon the above considerations, the there is no feasible and prudent alternative to the use of the Old Highway Segment, and the action includes all possible planning to minimize harm to the property resulting from such use. In accordance with 23 CFR Part 774.3(c) (1), the Preferred Alternative causes the least overall harm after consideration of

the factors shown in Table 2. The Avoidance Alternative causes severe problems of a magnitude that substantially outweighs the importance of protecting the Section 4(f) property, which has been mitigated to a no adverse effect.

It is the recommendation of the AHTD that the Preferred Alternative be built to those specifications, drawings, and agreements as set forth by the FHWA and the AHTD. The Old Highway Segment will be demolished by the construction of the Preferred Alternative, but will be documented by the completion of an Arkansas Architectural Resource Form, digital color photographs, (GPS) location map, and the development of a written history for the historic roadway as mitigation for the adverse effect. The supporting National Environmental Policy Act documentation for this project is a Tier 3 Categorical Exclusion as defined in the Federal Register 23 C.F.R. 771.117(b)(3).

Table 2 Factors to be Considered under 23 CFR Part 774.3(c)(1)							
Factors	Avoidance Alternative	Preferred Alternative					
(i) The ability to mitigate adverse impacts to each Section 4(f) property	N/A	The adverse effects will be fully mitigated by implementation of the MOA.					
(ii) The relative severity of the remaining harm, after mitigation, to the protected features that qualify each Section 4(f) property for protection	N/A	Old Highway Segment is eligible under Criteria A for its architecture, which was documented per AHPP requirements. No adverse effect remains.					
(iii) The relativesignificance of the Section4(f) property	Old Highway Segment is deemed potentially eligible to the NHRP under Criteria A for architecture.	Old Highway Segment is deemed potentially eligible to the NHRP under Criteria A for architecture.					
(iv) The views of the official(s) with jurisdiction over each Section 4(f) property	N/A	The SHPO found the mitigation provided for the Old Highway Segment acceptable					
(v) The degree to which each alternative meets the purpose and need for the project	Fully meets purpose and need	Fully meets purpose and need					
(vi) After reasonable mitigation, the magnitude of any adverse impacts to resources not protected by Section 4(f)	<u>Relocations</u> one residential owner one residential tenant one business one landlord business	No residential relocations and no personal property relocations					
(vii) Substantial differences in costs among the alternatives*	7% increase in overall project costs*	no increase in project cost*					

* These estimates represent only that portion of the project that would change to avoid the Section 4(f) Structure. They do not represent cost, right of way, or impacts for the entire project.

APPENDIX A

Coordination Letters

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

Scott E. Bennett Director Telephone (501) 569-2000 Voice/TTY 711



P.O. Box 2261 Little Rock, Arkansas 72203-2261 Telefax (501) 569-2400 www.arkansashighways.com

May 6, 2016

Mr. Robert Scoggin Arkansas Historic Preservation Program 323 Center Street, Suite 1500 Little Rock, Arkansas 72201

> RE: AHTD Job Number 061309 Mitzi Pkwy. – Hwy. 290 (Sel. Secs.) (S) Hot Spring and Garland Counties

Dear Mr. Scoggin:

This project proposes to construct various safety improvements to 3.8 miles of Highway 7 in Hot Springs and Garland Counties. A feature has been identified that is believed to be in excess of fifty years in age and may be impacted by the project.

A photograph, aerial imagery, description, and location map for this feature are included so your staff may evaluate its eligibility for inclusion in the National Register of Historic Places. If, in the opinion of the AHPP these structures are eligible, please include any mitigation alternatives in the response letter. If you have any questions about the project, please contact Milton Hughes of my staff at (501) 569-2080.

Sincerely,

John Fleming

John Fleming Division Head Environmental Division

Enclosure Request for Technical Assistance JF:DW:MH:ym



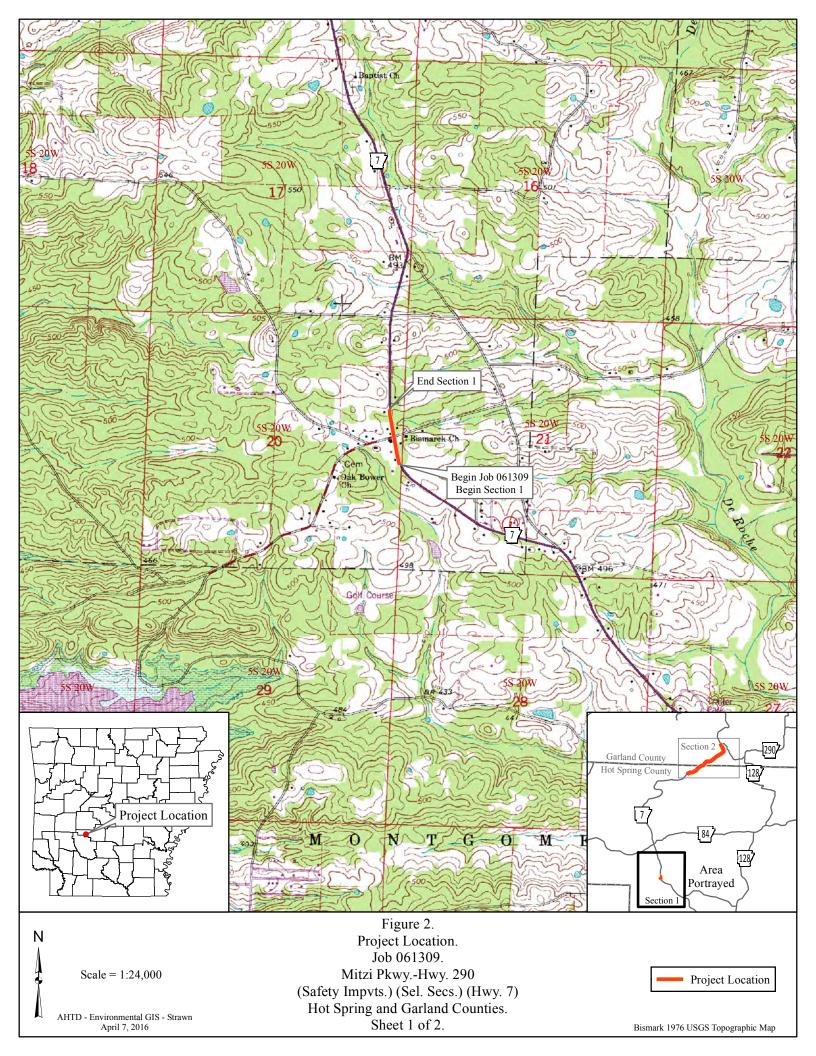
Property 1

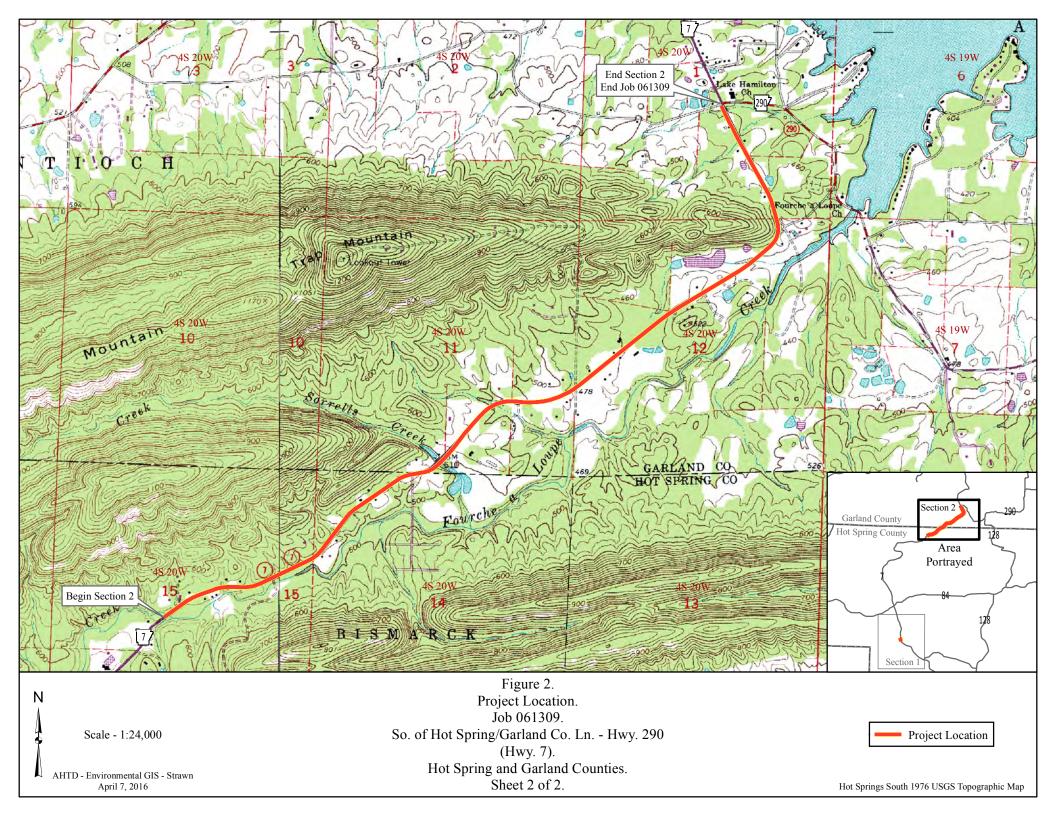
In the opinion of FHWA/AHTD this structure is **Not Eligible**.

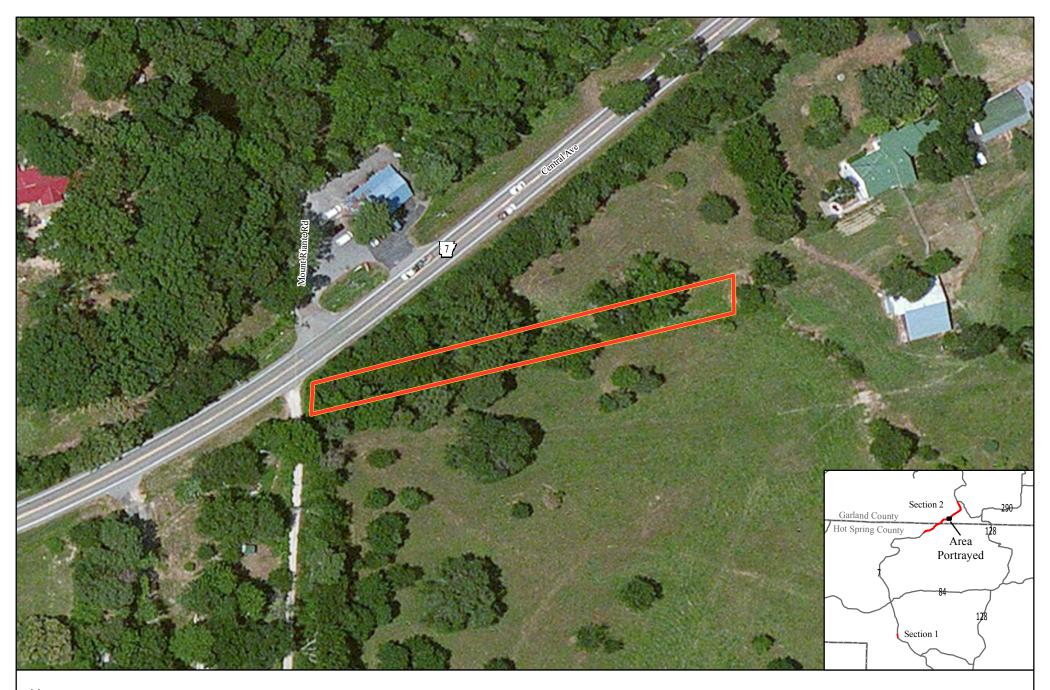
This is a 144 meter long segment of an abandoned dirt roadway located south of Highway 7. The west end of the segment has been impacted by the existing Highway 7 ROW and the road disappears towards the east. The level travel surface of the road is about 1.5 meters below natural ground level and is about 4-4.5 meters wide with 1.5 - 1.75 meter wide ditches. A seasonal drain has impacted an 8x20 meter portion of the road.

The road alignment approximates the location of a highway noted on the 1911 15' Hot Springs and Vicinity, ARK topographic map. The realignment of the highway onto its current centerline was associated with the 1916 Federal Aid Road Act that created the Bankhead Highway, a multi-state improved road system. It appears that the western end of this fragment is where the highway relocation of circa 1919 left the original alignment. This section of roadway would have been located within the Southwest Arkansas Road Improvement District No. 1 that was created in 1919.

In addition to being impacted by the current Highway 7 alignment, portions of the road have been impacted by erosion. The abandoned roadway, having been impacted by the existing highway and erosional scars, also lacks significant antiquity or association with important historic events. It is believed to be ineligible for consideration for nomination to the NRHP by the FHWA and the AHTD.







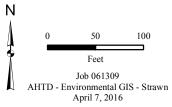
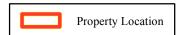


Figure 3. Property Location.





Asa Hutchinson Governor

> Stacy Hurst Director

Arkansas Arts Council

Arkansas Natural Heritage Commission

Delta Cultural Center

Historic Arkansas Museum

Mosaic Templars Cultural Center

Old State House Museum



ARKANSAS HISTORIC PRESERVATION PROGRAM





323 Center Street, Suite 1500 Little Rock, AR 72201

> (501) 324-9880 fax: (501) 324-9184 tdd: 711

e-mail: info@arkansaspreservation.org website: www.arkansaspreservation.com

An Equal Opportunity Employer

May 12, 2016

Mr. John Fleming Division Head Environmental Division Arkansas State Highway and Transportation Department PO Box 2261 Little Rock, AR 72203-2261

RE: Hot Spring and Garland Counties – General Section 106 Review – FHWA Request for Technical Assistance AHTD Job Number 061309 Mitzi Pkwy. –Hwy. 290 (Sel. Secs) (S) AHPP Tracking Number 92020.04

Dear Mr. Fleming:

This letter is written in response to your inquiry regarding properties of architectural or historical significance in the area of the proposed referenced project. The staff of the Arkansas Historic Preservation Program has reviewed the documents that pertain to this undertaking and has determined that Property 1 pictured in the documentation provided with your May 6, 2016, letter is eligible for listing in the National Register of Historic Places (NRHP).

We have determined that this roadway segment is eligible under Criterion A supporting the history of transportation in Arkansas. As seen from an aerial map view, this road segment is significantly entrenched indicating an extended period of use. It also extends 370 meters beyond the 144 meter segment of this undertaking increasing its significance. Its association with the 1916 Federal Aid Road Act that created the Bankhead Highway further links it to early transportation and specifically to access to and from the City of Hot Springs at a time when the resort city attracted visitors from all over the country.

Once the undertaking is further along in the planning stages, we look forward to reviewing the proposed project. If you should have any questions or comments, please do not hesitate to contact Theresa Russell of my staff at (501)-324-9357.

Sincerely,

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Frances McSwain Deputy State Historic Preservation Officer

cc: Mr. Randal Looney, Federal Highway Administration
Ms. Somier D. Harris, Caddo Nation
Ms. Amber Hood, Chickasaw Nation
Dr. Ian Thompson, Choctaw Nation of Oklahoma

RECEIVED AHTD

MAY 1 7 2016

ENVIRONMENTAL DIVISION



Asa Hutchinson Governor

> Stacy Hurst Director

Arkansas Arts Council

Arkansas Natural Heritage Commission

Arkansas State Archives

Delta Cultural Center

Historic Arkansas Museum

Mosaic Templars **Cultural Center**

Old State House Museum



ARKANSAS HISTORIC **PRESERVATION PROGRAM**



National Historic Preservation Act 1966-2016



1100 North Street Little Rock, AR 72201

(501) 324-9880 fax: (501) 324-9184 tdd: 711

e-mail: info@arkansaspreservation.org website: www.arkansaspreservation.com

An Equal Opportunity Employer

December 1, 2016

RECEIVED AHTD

DEC 0 7 2016

DIVISION

Mr. John Fleming ENVIRONMENTAL **Division** Head Environmental Division Arkansas State Highway and Transportation Department P.O. Box 2261 Little Rock, AR 72203-2261

RE: Garland and Hot Spring Counties - General Section 106 Review – FHWA Report Titled: A Cultural Resources Survey of AHTD Job Number 061309 Mitzi PKWY. – HWY. 290 (Safety IMPVTS.) (SEL. SECS.) (S) Hot Spring and Garland Counties Arkansas AHTD Job Number: 061309 AHPP Tracking Number: 92020.05

Dear Mr. Fleming:

The staff of the Arkansas Historic Preservation Program (AHPP) has reviewed the above-referenced cultural resources survey report. Based on the information presented in this report we concur that the proposed undertaking will not impact site 3GA0116. We also concur with the recommendation that site 3GA1058 is not eligible for the National Register of Historic Places (NRHP) and requires no further work or avoidance by the proposed project.

We concur that 3GA1059 is eligible for the NRHP. Furthermore we understand that it cannot be avoided and the continuation of the undertaking will constitute an adverse effect. In order to mitigate the adverse effect to 3GA1059 a Memorandum of Agreement (MOA) will be required as per 36 CFR § 800.6(b)(1)(i-iv).

Thank you for the opportunity to review this undertaking and we look forward in developing a MOA for site 3GA1059. Please refer to the AHPP Tracking Number listed above in all correspondence. If you have any questions, please call Tim Dodson of my staff at 501-324-9784.

Sincerely,

Eranus M Swen

Frances McSwain Deputy State Historic Preservation Officer

Mr. Randall Looney, Federal Highway Administration cc: Ms. Tamara Francis-Fourkiller, Caddo Nation Ms. Karen Brunso, The Chickasaw Nation Dr. Ian Thompson, Choctaw Nation of Oklahoma

Dr. Andrea Hunter, Osage Nation Mr. Everett Bandy, Quapaw Tribe of Oklahoma Ms. Kim Jumper, Shawnee Tribe of Oklahoma

Dr. Ann Early, Arkansas Archeological Survey

APPENDIX B

Memorandum of Agreement

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

Scott E. Bennett, P.E. Director Telephone (501) 569-2000 Voice/TTY 711



P.O. Box 2261 Little Rock, Arkansas 72203-2261 Fax (501) 569-2400 www.arkansashighways.com

March 7, 2017

Mr. Angel Correa Division Administrator Federal Highway Administration 700 West Capitol Avenue, Room 3130 Little Rock, Arkansas 72201

> Re: AHTD Job No. 061309 Mitzi Pkwy.-Hwy. 290 (Safety Impvts.) (Sel. Secs.) Garland and Hot Spring Counties

Dear Mr. Correa:

Enclosed for signature is the Final Memorandum of Agreement regarding the Historic Properties regarding the proposed safety improvements on Hwy. 7 in Garland and Hot Spring Counties. The MOA has been reviewed and approved by the State Historic Preservation Office and the Arkansas State Highway and Transportation Department. If you have any questions or require additional information, please contact Milton Hughes of my staff at (501) 563-2080.

Sincerely,

John Fleming Division Head Environmental Division

Enclosure Memorandum of Agreement

JF:DW:ym

MEMORANDUM OF AGREEMENT

AMONG THE FEDERAL HIGHWAY ADMINISTRATION, THE ARKANSAS STATE HISTORIC PRESERVATION OFFICER AND THE ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT REGARDING

AHTD JOB NUMBER 061309 MITZI PARKWAY - HIGHWAY. 290 (SAFETY IMPROVEMENTS)(SELECTED SECTIONS)(S) HIGHWAY 7, GARLAND COUNTY, ARKANSAS

WHEREAS, the Federal Highway Administration (FHWA) has determined that Arkansas State Highway and Transportation Department (AHTD) Job Number 061309, the widening of 3.8 miles of Highway 7 in Hot Spring and Garland Counties, is necessary to serve the transportation needs of the area in order to improve traffic flow, safety and capacity in the project area and is a federal undertaking as defined in 36 Code of Federal Regulations (CFR) Part 800.3(a); and

WHEREAS, the FHWA has defined the undertaking's area of potential effect (APE); and

WHEREAS, a cultural resources survey of the Project has been completed and all structures fifty years in age or older have been identified and evaluated by the FHWA in consultation with the Arkansas State Historic Preservation Officer (SHPO) for potential eligibility to the National Register of Historic Places (NRHP); and

WHEREAS, the Sorrel Creek Bridge (AHTD Bridge Number 01345) was determined to be eligible for consideration for nomination to the NRHP and its proposed demolition has been mitigated through a separate MOA; and

WHEREAS, in accordance with 36 CFR Part 800 regulations implementing Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended (16 U.S.C. 470f), the FHWA has determined that AHTD Job 061309 will also have an adverse effect on an abandoned section of road that has been determined eligible for listing on the NRHP under Criterion A for its contribution to the history of transportation in Arkansas; and

WHEREAS, through the FHWA Section 4(f) Evaluation process the FHWA has determined that no feasible and prudent alternative to impacting the property exists; and

WHEREAS, the FHWA in accordance with 36 Code of Federal Regulations (CFR) Part 800, regulations implementing Section 106 of the NHPA of 1966, as amended (16 U.S.C. 470f), must address this effect; and

AHTD Job Number 061309 Memorandum of Agreement Page 2 of 8

WHEREAS, the definitions set forth in 36 CFR Part 800 are applicable throughout this Memorandum of Agreement (MOA); and

NOW THEREFORE, the FHWA and the SHPO agree that the undertaking shall be implemented in accordance with the following stipulations in order to take into account the adverse effect of this undertaking on the historic property.

STIPULATIONS

The FHWA, through the AHTD, will ensure that the following stipulations are carried out.

- I. MITIGATION OF ADVERSE EFFECT TO THE HISTORIC PROPERTY: (abandoned road segment, 3GA1059)
 - 1. An Arkansas Archeological Survey Site Form that follows the guidelines in Section VIII, Appendix B of *A State Plan for the Conservation of Archeological Resources in Arkansas* (Davis and Early 2010) has been completed and submitted for the affected 7% (approximately 223 square meters) of the 514 meter long abandoned road segment (3GA1059). A State Revisit Form will be submitted and will include photographs, results of shovel testing, associated historic maps and a measured cross-section schematic.
 - 2. An Arkansas Architectural Resources Form will be completed for 3GA1059 and will include at least two archival digital color photographs of the property.
 - 3. The physical location of the eligible segment will be documented with a sub-meter resolution GPS unit and will include the extent and geometry of the effected property.
 - 4. A written history of the road and the Arkansas highway system will be produced.
 - 5. The documentation will be curated at the Arkansas Historic Preservation Program (AHPP), the AHTD, the Arkansas History Commission, and the Torreyson Library at the University of Central Arkansas.
 - 6. No construction activity associated with the project will be undertaken on the historic property until all fieldwork portions of the required mitigation have been completed.

7. The FHWA shall ensure that adequate time and funding are provided in order to carry out all aspects of the required mitigation.

II. HUMAN REMAINS

Human remains are not expected to be discovered on this undertaking; however, if they are encountered during implementation of the project, all activity in the vicinity of the discovery shall cease. The treatment of human remains shall follow the guidelines developed for the *Arkansas Burial Law* (Act 753 of 1991, as amended) and the Advisory Council on Historic Preservation's *Policy Statement Regarding Treatment of Burial Sites, Human Remains, and Funerary Objects* published February 23, 2007.

III. DURATION

This MOA will remain in effect for a period not to exceed ten years from the date of ratification, or until the proposed construction is complete. It may be extended by agreement of all the signatories.

IV. PROFESSIONAL QUALIFICATIONS STANDARDS

The FHWA shall ensure that all archeological investigations and other historic preservation activities to this MOA are carried out by, or under the direct supervision of, a person or persons meeting the appropriate qualifications set forth in the Secretary of the Interior's professional qualification standards (48 CFR 44739).

V. ARCHEOLOGICAL FIELDWORK AND REPORT STANDARDS

All archeological field work and report writing shall follow the Secretary of the Interior's *Standards and Guidelines for Archeology and Historic Preservation* (48 CFR 44716-39) and *A State Plan for the Conservation of Archeological Resources in Arkansas* (Davis and Early 2010).

VI. POST-REVIEW DISCOVERY SITUATIONS

Pursuant to 36 CFR Part 800.13, if cultural material is discovered during implementation of the project, the FHWA shall ensure that all construction activities cease in the area of the discovery and the consulting parties are notified. The FHWA and the SHPO shall determine if the discovery is eligible for inclusion in the National Register of Historic Places. If so, the FHWA and the AHTD will develop a treatment plan for historic properties which shall be reviewed and approved by the SHPO. Disputes arising from such review shall be resolved in accordance with Stipulation VII.

VII. DISPUTE RESOLUTION

Should the SHPO or any consulting party object within thirty (30) calendar days to any findings, proposed actions or determinations made pursuant to this MOA, the FHWA shall consult with the objecting party to resolve the objection. If the FHWA determines that the objection cannot be resolved, it shall request further comments from the Advisory Council on Historic Preservation (Council) pursuant to 36 CFR Part 800.7. Any Council comment provided in response to such a request shall be taken into account by the FHWA in accordance with 36 CFR 800.7 with reference only to the subject of the dispute; the FHWA responsibility to carry out all actions under this MOA that are not subject to dispute shall remain unchanged.

VIII. MONITORING

The consulting parties or one or more parties in cooperation may monitor the undertaking and stipulations carried out pursuant to this MOA.

IX. AMENDING THE MEMORANDUM OF AGREEMENT

Should any of the signatories to this MOA believe that the terms of this MOA are not being met or cannot be met, that party shall immediately notify the other signatories and request consultation to amend this MOA in accordance with 36 CFR Part 800. The process to amend this MOA shall be conducted in a manner similar to that leading to the execution of this MOA.

X. TERMINATING THE MEMORANDUM OF AGREEMENT

Any signatory to this MOA may terminate it by providing thirty (30) calendar days notice to the other parties provided that the parties shall consult during the period prior to termination to seek agreement on amendments or other actions that would avoid termination. In the event of termination, the FHWA shall comply with 36 CFR Part 800.4 through 800.6 with regard to the undertaking covered by this MOA.

XI. FAILURE TO CARRY OUT THE MEMORANDUM OF AGREEMENT

In the event the FHWA does not carry out the terms of the MOA, the FHWA shall comply with 36 CFR Part 800.4 through 800.6 with regard to the undertaking covered by this MOA.

XII. FULFILLMENT OF SECTION 106 RESPONSIBILITIES

Execution and implementation of this MOA evidences that the FHWA has afforded the ACHP a reasonable opportunity to comment pursuant to 36 CFR Part 800 on the proposed replacement of the National Register eligible Sorrel Creek Bridge in Garland County, Arkansas and its effect on the historic property, and the FHWA has taken into account the effect of the undertaking on the historic property.

AHTD Job Number 061309 Memorandum of Agreement Page 6 of 8

Signatory

FEDERAL HIGHWAY ADMINISTRATION

Angel Correa Arkansas Division Administrator

3/10/2017 Date

AHTD Job Number 061309 Memorandum of Agreement Page 7 of 8

Signatory

ARKANSAS STATE HISTORIC PRESERVATION OFFICER

Stacy Hurst Arkansas State Historic Preservation Officer

<u>|-13-17</u> Date

AHTD Job Number 061309 Memorandum of Agreement Page 8 of 8

Signatory

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

Scott E. Bennett, P.E. Director of Highways and Transportation

Date

PUBLIC INVOLVEMENT SYNOPSIS

Job Number 061309 Mitzi Pkwy. – Hwy. 290 (Safety Impvts.)(Sel. Secs.) (Hwy. 7) Hot Spring & Garland Counties Thursday, March 10, 2016

An open forum Public Involvement Meeting for the proposed project was held at the Lake Hamilton Baptist Church (Fellowship Hall) from 4:00 - 7:00 p.m. on Thursday March, 10, 2016. Special efforts to involve minorities and the public in the meeting included the following:

- Display advertisement placed in the *Sentinel-Record* on Sunday, February 28, 2016 and Sunday, March 6, 2016.
- Outreach to Minority Minister Letters.
- Distribution of flyers in the project area.

The following information was available for inspection and comment:

- Displays including an aerial photograph at a scale of 1 inch equals 1,500 feet.
- Preliminary plans at a scale of 1 inch equals 100 feet.

Handouts for the public included a comment sheet and a small-scale map illustrating the project location, which was identical to the aerial photograph display. Copies of the handouts are attached.

Table 1 describes the results of the public participation at the meeting.

TABLE 1					
Public Participation	Totals				
Attendance at meeting (including AHTD staff)	33				
Comment forms received	12				

AHTD staff reviewed all comments received and evaluated their contents. The summary of comments listed below reflects the personal perception or opinion of the person or organization making the statement. The sequencing of the comments is random and is not intended to reflect importance or numerical values. Some of the comments were combined and/or paraphrased to simplify the synopsis process.

Job Number 061309 Public Involvement Synopsis March 10, 2016 Page 2 of 2

An analysis of the responses received as a result of the public survey is shown in Table 2.

TABLE 2				
Survey Results	Totals			
Supports safety improvements on Highway 7	10			
Does not support safety improvements on Highway 7	1			
No response to supports/does not support question	1			
Beneficial impacts due to the proposed project	5			
Adverse impacts due to the proposed project	2			
Knowledge of historical, archeological or cemetery sites	2			
Knowledge of area environmental constraints				
Home or property offers limitations to the project	2			
Suggestions to better serve the needs of the community	5			

The following is a listing of comments concerning issues associated with this project:

- Four individuals commented that reducing speed, fixing driveways and easing curves would increase safety.
- One individual indicated it would increase property values.
- One individual wanted Highway 7 widened south to Interstate 30.
- Two individuals were concerned of losing their property and damages to their property.
- One individual was concerned about their septic system.

Attachments:

Public handouts, including blank comment form Small-scale display copies

RJ DN JB: cb

CITIZEN COMMENT FORM

AHTD JOB NUMBER 061309 Mitzi Parkway – Highway 290 (Hwy. 7 Select Sections) GARLAND/HOT SPRING COUNTIES

LOCATION: LAKE HAMILTON BAPTIST CHURCH 5963 CENTRAL AVENUE HOT SPRINGS, AR 4:00 – 7:00 p.m. THURSDAY, MARCH 10, 2016

Make your comments on this form and leave it with AHTD personnel at the meeting or mail it within 15 days to: Arkansas State Highway and Transportation Department, Environmental Division, Post Office Box 2261, Little Rock, Arkansas 72203-2261. Email: <u>environmentalpimeetings@ahtd.ar.gov</u>.

Yes	No	Do you feel there is a need for safety improvements on Highway 7 between Mitzi Parkway and Highway 290? Comment (optional)
		Do you feel the proposed project will have any impacts, (Beneficial or Adverse) on your property and/or community (either economically, socially, or environmentally etc.)? Please explain:
		Do you know of any historical sites, family cemeteries, or archaeological sites in the project area? Please note and discuss with staff.
		Do you know of any environmental constraints, such as endangered species, hazardous waste sites, existing or former landfills, or parks and public lands in the vicinity of the project? Please note and discuss with AHTD staff.

Yes	No	Does your home or property offer any limitations to the project, such as septic systems, that the Department needs to consider in its design?
		Do you have a suggestion that would make this proposed project better serve the needs of the community?
		essary for the AHTD to contact property owners along potential routes. If operty owner along or adjacent to the route under consideration, please
		nation below. Thank you.
Name		(Please Print)
Addres	s:	Phone: ()
E-mail:		
Please	make	additional comments here

For additional information, please visit our website at www.arkansashighways.com



	Gray	the forthe	@ Harris Corp, Earthstar Geo	graphics LLC Earthstar Geographic	as SIO @ 201 8 Microsoft Corporation
	otes:				
N	0 2,250 4,500 Feet AHTD Environmental GIS - Strawn Map Date: February 26, 2016 Meeting Date: Thursday, March 10, 2016 Public Involvement Handout	(AHID)	Job 061309 Mitzi Pkwy Hwy. 290 (Safety Impvts.) (Sel. Secs.) (Hwy. 7) Hot Spring and Garland Counties	Preliminary Subject to Revision	Project Location

AHTD ENVIRONMENTAL IMPACTS ASSESSMENT FORM

AHTD Job Number 061309 FAP Number

PEN-3026(1)

Job Title Mitzi Pkwy-Hwy 290 (Safety Impvts) (Sel Secs.)

Environmental Impacts	None	Minor	Significant	Comments
Air Quality	Х			
Construction Impacts		X		Temporay
Cultural Resources	Х			
Economic	Х			
Endangered Species		X		Final 4(d) Rule and Programmatic BO
Energy Resources	Х			
Environmental Justice/Title VI	Х			
Fish and Wildlife		Х		Minor loss of habitat
Floodplains	Х			
Forest Service Property	Х			
Hazardous Materials/Landfills	Х			
Land Use Impacts	Х			
Migratory Birds		X		Bird SP
Navigation/Coast Guard	Х			
Noise Levels	Х			
Prime Farmland		x		2.4 acres of Prime Farmland and .1 acre of Farmland of Statewide Importance
Protected Waters	Х			
Public Recreation Lands	X			
Public Water Supply/WHPA	X			
Relocatees		X		1 business relocated
Section 4(f)/6(f)		x		Historic Bridge and Historic Road Segment (4(f) Evaluations enclosed)
Social	Х			
Underground Storage Tanks	Х	-		
Visual Impacts	Х			
Stream Impacts		X		NW 23 Sect. 404 Permit
Water Quality		X		Temporary during construction
Wetlands	-	X		1.1 acres of wetland impacts
Wildlife Refuges	Х			

Section 401 Water Quality Certification Required? Short-term Activity Authorization Required? Section 404 Permit Required?

No Yes

Yes

Type NW23

Remarks:

Signature	of	Evaluator_	
5/17/2011			

Date

Date Submitted: April 1, 2016

Date Returned:

ROADWAY DESIGN REQUEST

Job	Number 061309 FAP	No. <u>ZS</u>	31-3026(1)	Counties Hot Sp	oring & Garland
Job	Name Mitzi PkwyHwy.				
	eign Engineer Primary		vironmental		
Brie	ef Project Description Add center	turn lane a	nd replace b	ridge	
A.	Existing Conditions:			D 111	241
	1. Roadway Width:	Metric:	-		24'
	2. Shoulder Width:	Metric:			4'
	3. Number of Lanes and Width:				2-12'
	4. Existing Right-of-Way:	Metric:		English:	80'
B.	Proposed Conditions:				
	1. Roadway Width:	Metric:		English:	36'
	2. Shoulder Width:	Metric:		English	6'-8'
	3. Number of Lanes and Width:	Metric:		English	3-12'
	4. Average Right-of-Way:	Metric:		English:	130'
C. D.	Construction Information: If detour: Where: Design Data: County 2016 AD	Length: DT: 6,300		Englis ADT: 7,600	sh: Trucks: 3%
		71. 0,500		AD1. 7,000	
D	Design Speed: km/h50/	55_m.p.h.			
E.	Approximate total length of pro	ject:	kilo	meter(s) 3.79	mile(s)
F.	Justification for proposed impro	vements:	Safety		
G.	Total Relocatees: 0 Reside	nces: _0	Businesses	s: <u>0</u> Personal Pr	op: <u>1</u>
H.	Have you coordinated with any	of the follo	wing: (provi	de name and date)	
	City and/or County Officials: State Agency: Federal Agency:				



DEPARTMENT OF THE ARMY

LITTLE ROCK DISTRICT, CORPS OF ENGINEERS POST OFFICE BOX 867 LITTLE ROCK, ARKANSAS 72203-0867 www.swl.usace.army.mil

May 22, 2019

Regulatory Division

NATIONWIDE PERMIT NO. MVK 2017-00986

Mr. John Fleming Division Head, Environmental Division Arkansas Department of Transportation PO Box 2261 Little Rock, Arkansas 72203-2261

Dear Mr. Fleming:

Please refer to your recent request concerning Department of the Army permit requirements pursuant to Section 404 of the Clean Water Act. You requested authorization for the placement of dredged and fill material in waters of the United States associated with improving two sections of State Highway 7 south of Hot Springs. The existing roadway consists of two 12-foot-wide lanes with 4-foot-wide shoulders. Section 1 is approximately 0.5 miles in length and improvements will include two 12-foot-wide lanes with a 12-foot-wide center turn lane and 6-foot-wide shoulders. Section 2 is approximately 3.3 miles in length and improvements will include two 12-foot-wide lanes with a 12-foot-wide center turn lane and 8foot-wide shoulders. The project will permanently impact approximately 1.03 acres of wetlands. The project will relocate 144 linear feet of Sorrells Creek and two segments (236 and 155 linear feet) of two intermittent streams for box culvert construction. The Sorrells Creek Bridge and a segment of highway known as Old Roadway are eligible for the National Register of Historic Places. Since no entities were willing to accept title for preservation of the historic bridge, it will be demolished in accordance with the Memorandum of Agreement (MOA) between the Federal Highway Administration (FHWA), the Arkansas Historic Preservation Program and ArDOT. The Old Roadway segment will be documented and demolished in accordance with the MOA. The project lies within the consultation area of the Federally listed Northern Long-eared Bat (NLEB) (Myotis septentrionalis) and complies with the Final 4(d) Rule and Programmatic Biological Opinion. ArDOT must consult with the U.S. Fish and Wildlife Service for potential impacts to the NLEB at all offsite locations. The project was approved as a Tier 3 Categorical Exclusion by the FHWA on March 10, 2017. The project is located on State Highway 7 between Lake DeGray and Lake Hamilton, in section 20, T. 5 S., R. 20 W., and in sections 1, 11, 12, 14 and 15, T. 4 S., R. 20 W., Hot Spring and Garland Counties, Arkansas. A vicinity map, project location maps and wetland credits worksheet are enclosed.

The proposed activities are authorized by Department of the Army Nationwide Permit (NWP) No. 23 (copy enclosed), provided that the following Special Condition and General Conditions therein are met. For your convenience, we have highlighted the General Conditions of the NWP that are the most pertinent to your project. You should become familiar with the conditions and maintain a copy of the permit at the worksite for ready reference. If changes are proposed in the design or location of the project, you should submit revised plans to this office for approval before construction of the change begins.

Special Condition:

ArDOT agrees to mitigate for the adverse impacts to 1.03 acres of wetlands with 13.0 wetland credits from their Upper Saline River Mitigation Bank. ArDOT will provide documentation of the mitigation bank transaction to the U.S. Army Corps of Engineers Little Rock District Transportation Program Manager.

Please pay particular attention to General Condition No. 12 which stipulates that appropriate erosion and siltation controls be used during construction and all exposed soil be permanently stabilized. Erosion control measures must be implemented before, during and after construction.

For your information, we have enclosed a copy of the Arkansas Department of Environmental Quality (ADEQ) Section 401 Water Quality Certification conditions, which are conditions of your permit. If you have any questions concerning compliance with the conditions of the 401 certification, you should contact Ms. Melanie Treat or Mr. Jim Wise at the ADEQ, Water Division, 5301 Northshore Drive, North Little Rock, Arkansas 72118, telephone (501) 682-0040.

Also, in order to fully comply with the conditions of the NWP, you must submit the enclosed compliance certification within 30 days of completion of the project. This is required pursuant to General Condition No. 30 of the permit.

The NWP determination will be valid until March 18, 2022. If NWP No. 23 is modified, suspended, or revoked during this period, your project may not be authorized unless you have begun or are under contract to begin the project. If work has started or the work is under contract, you would then have twelve (12) months to complete the work.

Your cooperation in the Regulatory Program is appreciated. If you have any additional questions about this permit or any of its provisions, please contact Mr. Johnny McLean at (501)

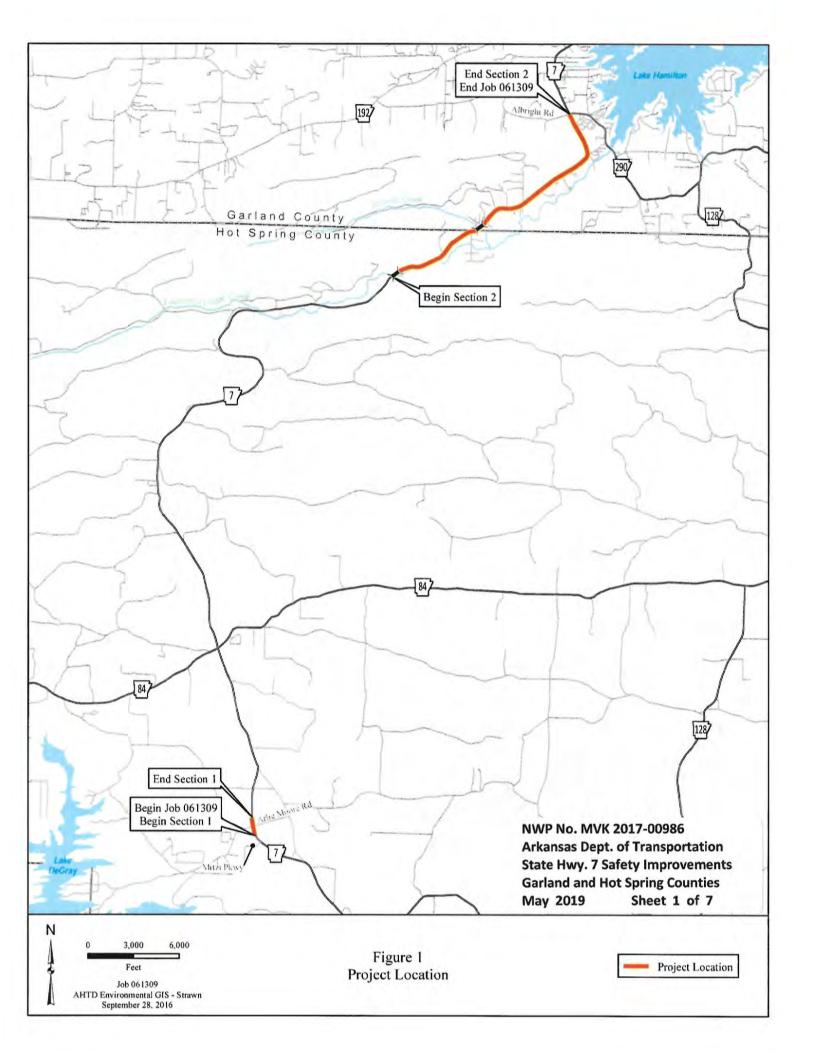
Sincerely,

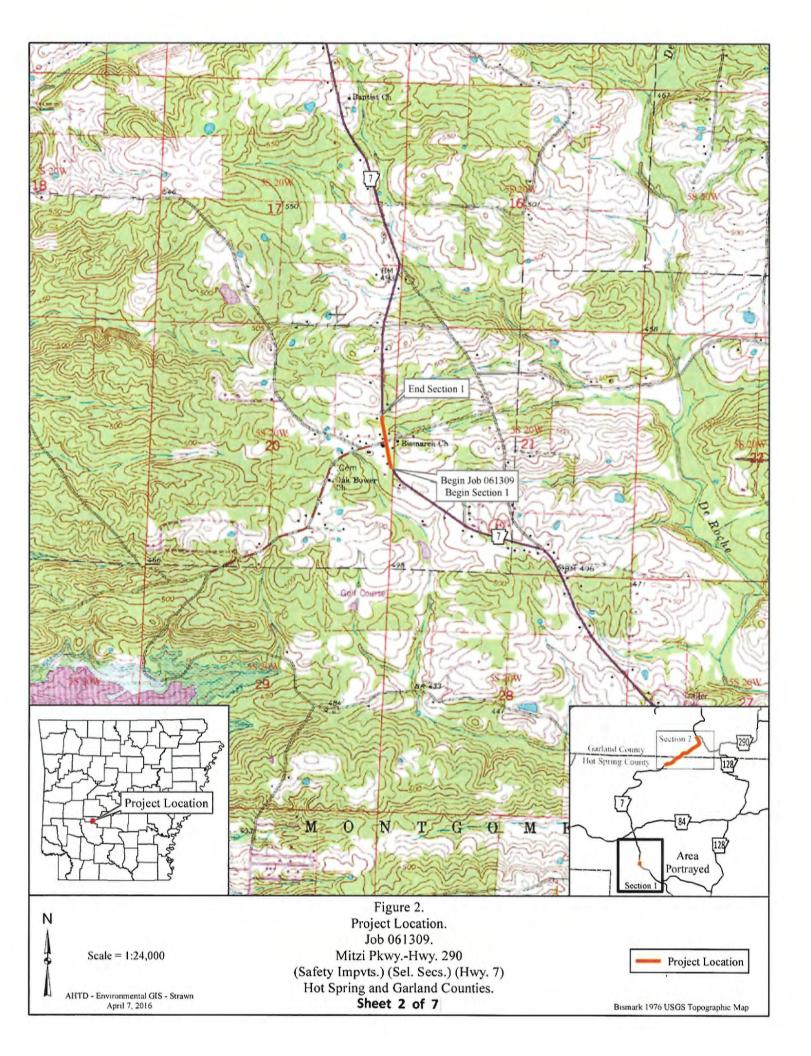
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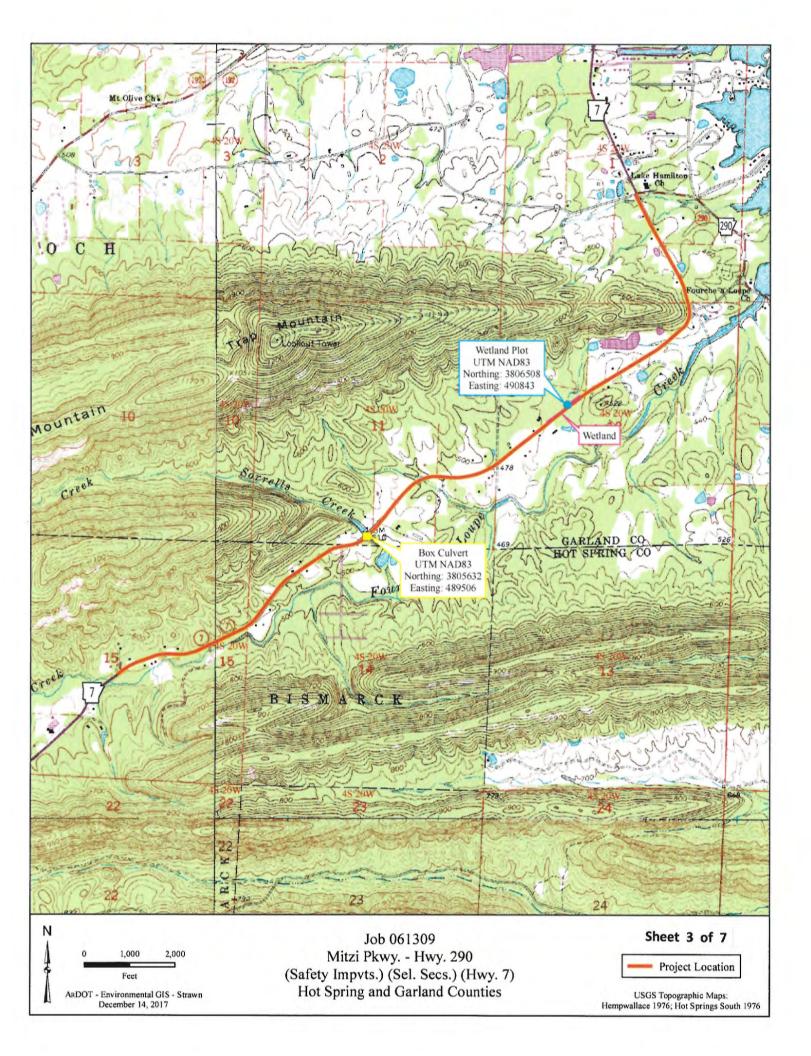
Chief, Regulatory Evaluation Branch

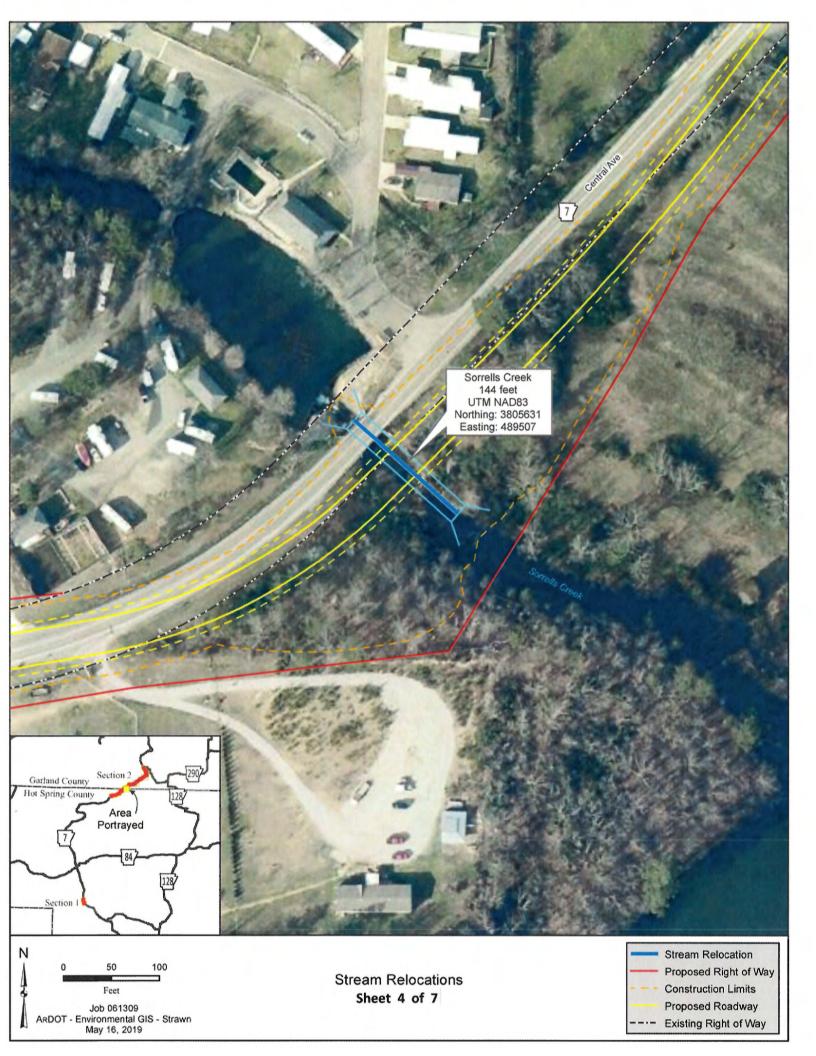
Enclosures

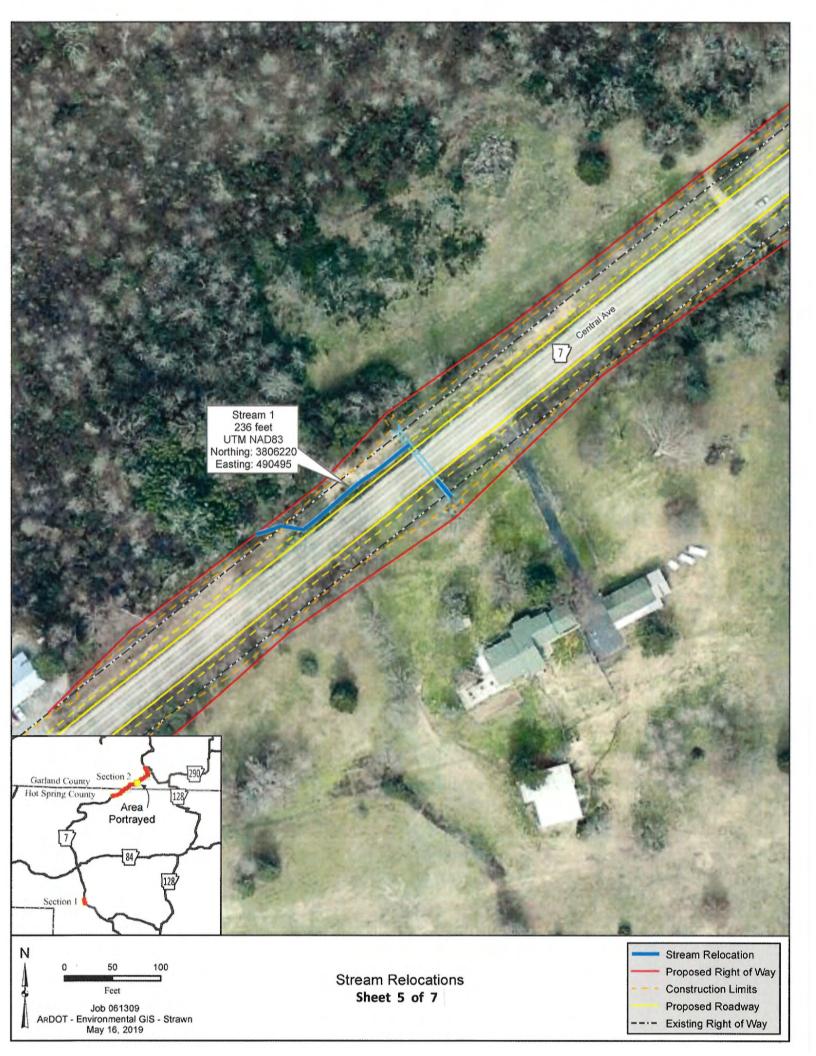
Copy Furnished: Vicksburg District Regulatory, w/cy encls. Ms. Melanie Treat, Arkansas Department of Environmental Quality, w/cy encls. Mr. Lindsey Lewis, U.S. Fish & Wildlife Service, w/cy encls.

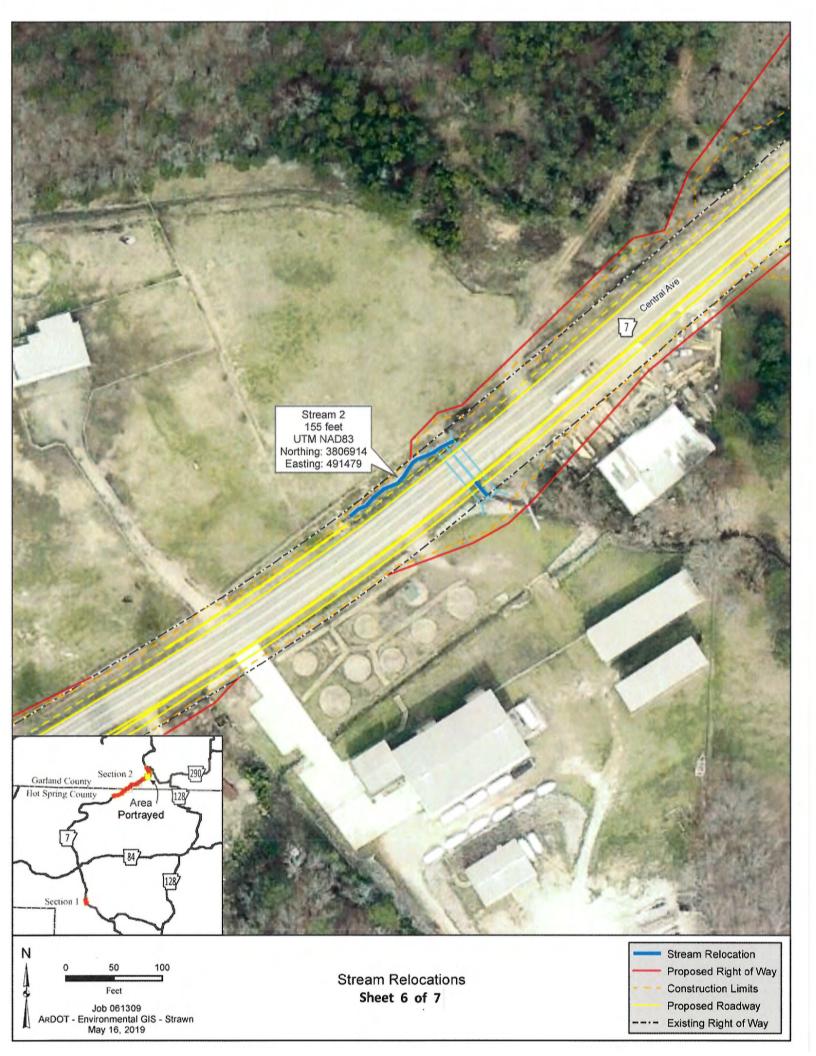












FACTORS	OPTIONS							
Lost Type	Туре С 0.2		Type B 2.0		Туре А 3.0			
Priority Category	Tertiary 0.5	Tertiary Seconda 0.5 1.5			ury Primary 2.0			
Existing Condition	Very Impaired 0.1		Impaired 1.0	Slightly Imp 2.0	Slightly Impaired 2.0		Fully Functional 2.5	
Duration	Seasonal 0.1	0 to 1 0.2	1 to 3 0.5	3 to 5 1.0	5 to 10 1.5		Over 10 2.0	
Dominant Impact	Shade Clear 0.2 1.0		Dredge 1.5	Drain 2.0	in pour		Fill 3.0	
Cumulative Impact	$0.05 \mathrm{~x} \sum \mathrm{AA_i}$							
Location	,	On Site 0.0			0	ff Site 3.0		

ADVERSE IMPACT FACTORS FOR WETLANDS AND OTHER WATERS OF THE U.S. EXCLUDING STREAMS

REQUIRED MITIGATION CREDITS WORKSHEET

Factor	Wetland 1a	Wetland 1b
Lost Type	Type A 3.0	Туре В 2.0
Priority Category	Secondary 1.5	Tertiary 0.5
Existing Condition	Slightly Impaired 2.0	Slightly Impaired 2.0
Duration	Over 10 2.0	Over 10 2.0
Dominant Impact	Clear 1.0	Permanent Fill 3.0
Cumulative Impact	0.1	0.1
Location	Off Site 3.0	Off Site 3.0
Sum of r Factors	$R_1 = 12.6$	$R_1 = 12.6$
Impacted Area	$AA_1 = 0.1$	AA ₁ = 0.93
R x AA=	1.3	11.7

Total Required Credits = $\sum (R \times AA) = 13.0$

The average credit per acre at the Upper Saline Mitigation Bank is 4.2 (3.1 acres). The equivalent acreage ratio is 3.1:1.