

State Level Historic Documentation Report

State Project No. S342-9/3-0.02
Federal Project No. BR-0093 (136) D

SHAVERS FORK ARCH BRIDGE Randolph County



Prepared by:

Tracy D. Bakic, Structural Historian

Department of Transportation
Division of Highways
Engineering Division
Environmental Section

July 16, 2013

STATE LEVEL HISTORIC DOCUMENTATION
SHAVERS FORK ARCH BRIDGE

Location: County Route 9/3, over Shavers Fork of the Cheat River
Outside Elkins (to Northwest)
Randolph County
West Virginia

USGS Elkins Quadrangle

Date of Construction: 1914

Builder: Farris Bridge Company of Charleston, West Virginia

Present Owner: West Virginia Department of Transportation
Division of Highways
1900 Kanawha Boulevard, Building 5, Room A-110
Charleston, WV 25305

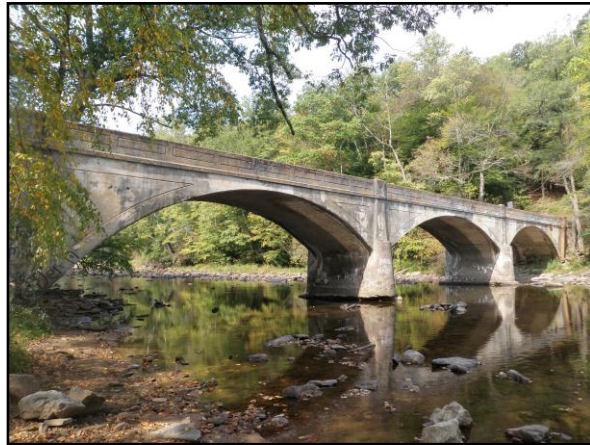
Present Use: Vehicular Bridge

Significance: The Shavers Fork Arch Bridge is significant as a transportation link and as an example of an early bridge type constructed by a master builder.

Project Information: The project has been undertaken due to the poor condition of the bridge. Any future deterioration of the bridge would result in its closure, the existing bridge warrants replacement. The documentation was undertaken in July 2013 in accordance with a Memorandum of Agreement among the West Virginia Department of Transportation and West Virginia State Historic Preservation Office. These measures are required prior to replacement of this National Register eligible structure.

Tracy D. Bakic, Structural Historian
West Virginia Division of Highways
Charleston, WV 25305
July 16, 2013

The Shavers Fork Arch Bridge spans the Shavers Fork of the Cheat River and is located in northern Randolph County, West Virginia on County Route 9/3, approximately 0.2 miles east of the County Routes 9 and 9/3 intersection.



The existing structure was built in 1914 by the Farris Bridge Company of Charleston, West Virginia. It is one of Randolph County's 14 extant concrete deck arch bridges built during the period between 1909, when the state legislature first enacted road design standards for county engineers, and 1920, when the Good Roads Amendment to West Virginia's constitution established a formal state supervised and funded road system to accomplish inter-county and wider connections too slow to occur with the early county efforts. The Shaver Fork Arch Bridge is 175'-4" long (end to end of rail) x 13'-3" wide (curb to curb) with three 53'-4" spandrel filled simple reinforced concrete deck arch spans supported by concrete skewbacks and solid concrete piers. The bridge does not include sidewalks. The Average Daily Traffic (ADT) in 2009 was 10 vehicles.



The latest bridge inspection report was completed in 2010 and lists the bridge in poor condition with a posted weight limit of 15 tons. There are voids between the pier stems and footings, and a portion of Pier 2 footing has broken and settled. The shotcrete repair on the abutment springing lines exhibits cracking and is breaking away. The arch rings and spandrel walls have cracking and efflorescence throughout, and

spandrel wall support ties were installed at the Abutment No. 1 (north) end of the bridge.

The Shavers Creek Arch Bridge is eligible for the National Register of Historic Places under Criterion A for its local significance as a transportation link and under Criterion C for its local engineering significance as an early bridge type (concrete arch) constructed by a company recognized as a master builder in West Virginia.

BIBLIOGRAPHY

KCI Technologies: Draft Historic Context, WV Statewide Historic Bridge Survey, October 2006.

West Virginia Division of Culture and History, Passage of the Good Roads Amendment/L E Lantz Collection online, <http://www.wvculture.org/history/transportation/goodroads01.html>

West Virginia Division of Highways, Bridge Inspection Report - Shavers Fork Arch / Bridge No. 42-9/3-0.02 [8376], Maintenance Division, Building 5, Capitol Complex, Charleston, West Virginia, August 11, 2010.

West Virginia Division of Highways, Bridge Safe Load Capacity – Analysis and Justification Report, Bridge No. 42-9/3-0.20 (8376), Maintenance Division, Building 5, Capitol Complex, Charleston, West Virginia, September 23, 2010.

West Virginia Division of Highways, Historic Property Inventory Form – Shavers Fork Arch, Engineering Division, Building 5, Capitol Complex, Charleston, West Virginia, November 2011.

West Virginia Division of Highways, Categorical Exclusion and Programmatic Section (4f), Engineering Division, Building 5, Capitol Complex, Charleston, West Virginia, February 2013.

STATE LEVEL HISTORIC DOCUMENTATION
INDEX TO PHOTOGRAPHS

Shavers Fork Arch Bridge

County Route 9/3, over Shavers Fork of the Cheat River

Randolph County, West Virginia

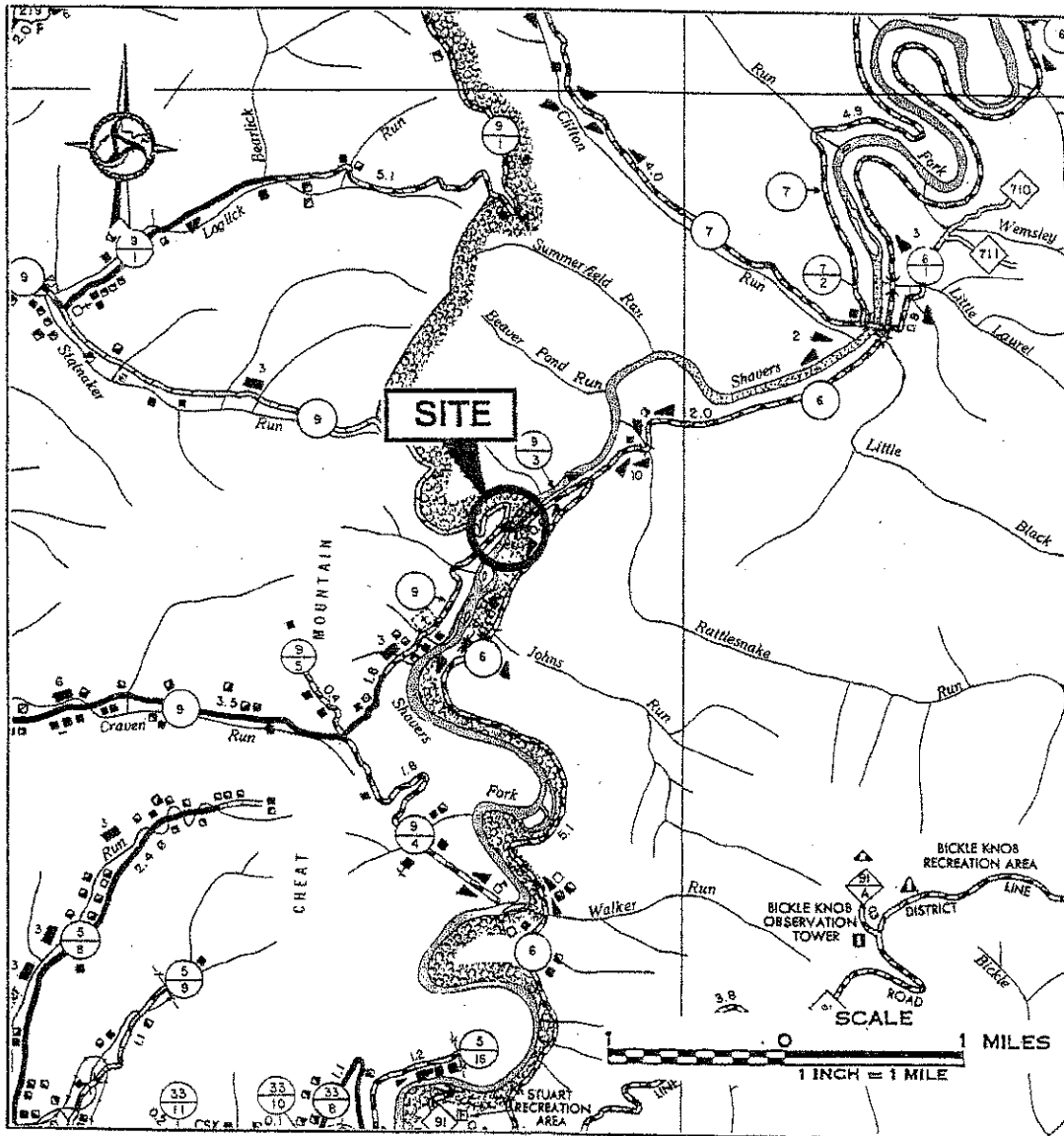
Photographer: Ginger Williford

September 28, 2010

- | | |
|------------------|---|
| SHAVERS FORK -1 | East Elevation Looking Upstream, View West |
| SHAVERS FORK -2 | South End View Looking West/Northwest along Route 9/3 |
| SHAVERS FORK -3 | Deterioration and cavities located on Pier 2 (South Pier), View North |
| SHAVERS FORK -4 | Railing/Parapet at West/Downstream Side, Taken from North Entry (CR 9 Side), View Southeast |
| SHAVERS FORK -5 | East Elevation Looking Upstream, View West |
| SHAVERS FORK -6 | Underside of North Arch, Taken from East Side, View Northwest |
| SHAVERS FORK -7 | West Elevation Looking Downstream, View North |
| SHAVERS FORK -8 | Northwest Corner Showing North Entry and West Elevation, View Southeast |
| SHAVERS FORK -9 | East Rail/Parapet, Taken from South Entry (CR 9/3 Side), View North |
| SHAVERS FORK -10 | West Elevation, View North |

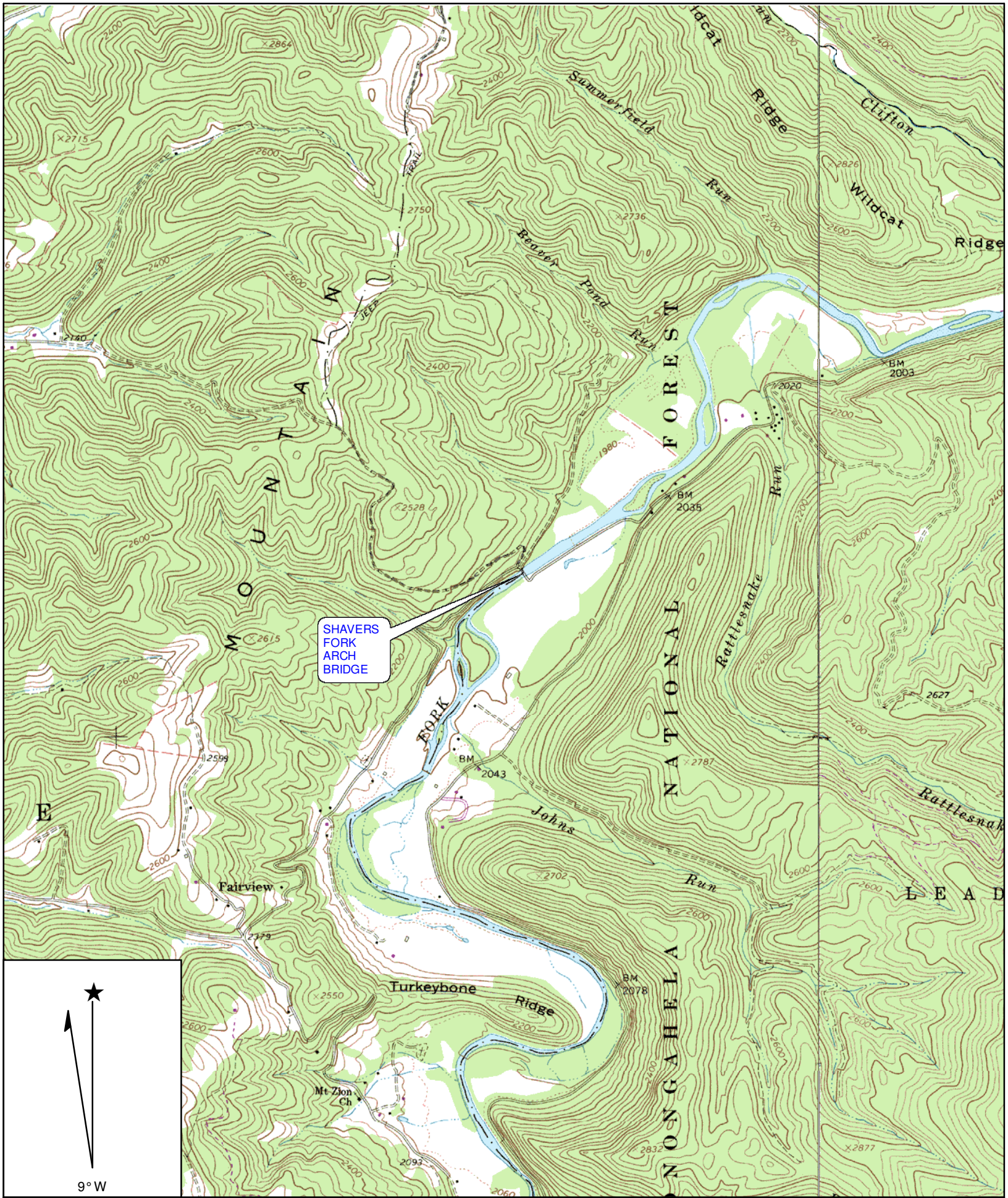
No original bridge plans exist for this bridge.

BRIDGE REPLACEMENT STUDY
SHAVERS FORK ARCH BRIDGE
STATE PROJECT NO. S242-9/3-0.02
FEDERAL PROJECT NO. BR-0093(138)E
RANDOLPH COUNTY



NOVEMBER 2005

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PLANNING AND RESEARCH DIVISION




Name: ELKINS
 Date: 7/3/2013
 Scale: 1 inch equals 2000 feet

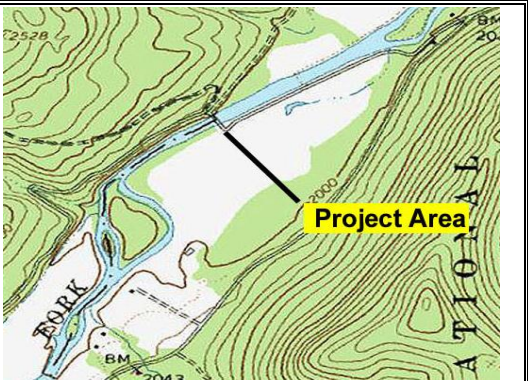
Location: 038° 57' 52.93" N 079° 46' 07.24" W
 Caption: SHIVERS CREEK ARCH BRIDGE
 Randolph County
 State Project 342-9/3-0.02

Internal Rating: _____



WEST VIRGINIA HISTORIC PROPERTY INVENTORY FORM

Street Address Randolph County Route (CR) 9/3, approximately 0.02 miles east of the intersection of CR 9 and CR 9/3.	Common/Historic Name/Both <input type="checkbox"/> Common <input type="checkbox"/> Historic <input checked="" type="checkbox"/> Both Shavers Fork Arch	Field Survey # HPI #1	Site # (SHPO Only)
Town or Community Rural	County Randolph	Negative No.	NR Listed Date
Architect/Builder Farris Bridge Company of Charleston, WV	Date of Construction 1914	Style (SHPO Only)	
Exterior Siding / Materials Concrete	Deck Material Gravel over a concrete deck	Foundation Concrete Abutments	
Property Use or Function Transportation	UTM Zone 17 NAD 1983 Easting 0606797 Northing 4313734		
Survey Organization & Date WVDOH November 2011	Quadrangle Name Elkins		
Part of What Survey / FR# Shavers Fork Arch Bridge State Project #S342-913-0-0.2 Federal Project #BR-0093-(136)D			



Site No.

Name: Shavers Fork Arch Bridge
Survey #: State Project #S324-9/3-0-0.02 Federal Project #BR-0093 (136) D
Survey / FR#:

Present Owners WVDOT	Owners Mailing Address 1900 Kanawha Blvd. East Building 5, Room 450 Charleston, WV 25305
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Describe Setting Unknown -- <1 Acres
 Archaeological Artifacts Present

The Bridge is located on Randolph County Route (CR) 9/3, approximately 0.02 miles east of the intersection of CR 9 and CR 9/3. The bridge crosses over Shavers Fork of the Cheat River in a rural portion of Randolph County.

Description of Buildings or Site (Original and Present) Stories Front Bays

The bridge consists of three spandrel filled simple concrete deck arch spans supported by concrete skewbacks and solid concrete piers. The overall length is 175'-4" and crosses over Shavers Fork of the Cheat River in a rural portion of Randolph County. The bridge was constructed in 1914 by the Farris Bridge Company of Charleston, West Virginia.

Alterations Yes No If yes, describe

Additions Yes No If yes, describe

Describe All Outbuildings
None

Statement of Significance:
See Continuation Sheet

Bibliographical References
A Context For Common Historic Bridge Types, Prepared by Parsons Brinckerhoff and Engineering and Industrial Heritage, October 2005
KCI Technologies: Draft Historic context, WV Statewide Historic Bridge Survey, October 2006.
West Virginia Historic Bridges by Emory L. Kemp, May 1984

Form Prepared By: **Date:** November 16, 2011

Name/Organization: Ginger Williford
Address: WV Division of Highways
Capitol Complex
Building 5, Rm. 463
Charleston, WV 25305

Phone #: 558-9676

WEST VIRGINIA HISTORIC PROPERTY FORM CONTINUATION SHEET

Name: Shavers Fork Arch Bridge
Survey Number: State Project #342-9/3-0-0.02 Federal Project #BR0093 (136) D
Project / FR#:

The Shavers Fork Arch Bridge was constructed in 1914 by the Farris Bridge Company of Charleston, West Virginia and is located on Randolph County Route (CR) 9/3, approximately 0.02 miles east of the intersection of CR 9 and CR 9/3. In 1909 the legislature passed laws delineating the county's responsibilities for road maintenance and set standards regarding the width and grade of state roads built by county engineers which was prior to the Good Roads Amendment. Of the existing fourteen concrete deck arch bridges in Randolph County, eleven of them, including the Shavers Fork Bridge were constructed between 1914 and 1917. Therefore, the Shavers Fork Arch Bridge is eligible for listing in the National Register of Historic Places under Criterion A for its local significance as a transportation link.

The Shavers Fork Arch Bridge was constructed in 1914 by the Farris Bridge Company of Charleston, West Virginia. The Farris Bridge Company was incorporated in 1908 by a Charleston engineer named William Farris. The Farris Bridge Company is considered a master builder in concrete bridges in West Virginia. However, the Shavers Fork Arch Bridge is not associated directly associated with William Farris as an individual. Therefore, the Shavers Fork Arch Bridge is not eligible for listing in the National Register of Historic Places under Criterion B.

The Shavers Fork Arch Bridge was constructed in 1914 by the Farris Bridge Company, Charleston, West Virginia. The Farris Bridge Company is considered a master builder in concrete bridges in West Virginia. The Shavers Fork Arch Bridge is a good representation of a concrete arch bridge built by the Farris Bridge Company that retains its location, design, setting, feeling and association as a transportation link. Therefore, it is our recommendation that the Shavers Fork Arch Bridge is eligible for listing in the National Register of Historic Places under Criterion C for its local significance as a concrete arch bridge constructed by a company recognized as a master builder in West Virginia.

The Shavers Fork Arch Bridge provides little potential to yield information important to history or prehistory. Therefore, the Daugherty Bridge is not eligible for listing in the National Register of Historic Places under Criterion D.

**MEMORANDUM OF AGREEMENT
BY AND AMONG
THE WEST VIRGINIA STATE HISTORIC PRESERVATION OFFICER
THE WEST VIRGINIA DIVISION OF HIGHWAYS
AND THE FEDERAL HIGHWAY ADMINISTRATION**

**REGARDING THE SHAVERS FORK ARCH BRIDGE
BRIDGE REPLACEMENT PROJECT
STATE PROJECT #S342-9/3-0-0.2
FEDERAL PROJECT #BR-0093 (136) D
RANDOLPH COUNTY, WEST VIRGINIA
April 13, 2012**

WHEREAS, the West Virginia Division of Highways (WVDOH) proposes to replace the Shavers Fork Arch Bridge, which spans Shavers Fork of the Cheat River and is located on Randolph County Route 9/3, approximately 0.02 miles east of the intersection of County Route 9 and County Route 9/3, hereinafter referred to as the Project. The improvements involve the construction of a new bridge adjacent and upstream of the existing structure. The alignment would be normal to the river with a total length of 480 feet. Upon completion of the new bridge the existing Shavers Fork Arch Bridge will be dismantled.

WHEREAS, the WVDOH has determined that the Project will have an adverse effect upon the Shavers Fork Arch Bridge, a property eligible for the National Register of Historic Places (NRHP); and

WHEREAS, the WVDOH has consulted with the West Virginia State Historic Preservation Officer (WVSHPO) pursuant to West Virginia Code Chapter 29, Article 1 and its implementing regulations (82 CSR 2), as well as 36 CFR Part 800.5 Implementing Section 106 of the National Historic Preservation Act; (16 U.S.C., 470f); and

WHEREAS, the WVDOH has determined that the Project will not affect archaeological properties; and

WHEREAS, the WVDOH has consulted with the Randolph County Historic Landmark Commission (HLC) and the West Virginia Preservation Alliance; and

WHEREAS, in accordance with 36 CFR 800.6 (a) (1), the FHWA has notified the Advisory Council on Historic Preservation (ACHP) of its adverse effect determination providing the specified documentation, and the ACHP has chosen not to participate in the consultation pursuant to 36 CFR 800.6 (a) (1) (iii);

NOW, THEREFORE, the WVSHPO and the WVDOH agree that the undertaking will be implemented in accordance with the following stipulations in order to take into account the effects of the undertaking on historic properties.

STIPULATIONS

The FHWA shall ensure that the following stipulations are carried out:

Shavers Fork Arch Bridge

- I. The Shavers Fork Arch Bridge will be documented in its present historic setting. The documentation package will include 5"x7" black and white digital prints in accordance with the Interim National Register of Historic Places and National Historic Landmarks Survey Photo Policy Expansion of January 2009.
- II. A brief history of the structure will be included in the aforementioned documentation package, along with fully completed West Virginia Historic Property Inventory form.
- III. The Shavers Fork Arch Bridge will be included in any comprehensive mitigation plan developed collaboratively by the WVDOH the FHWA and the WVSHPO. The Shavers Fork Arch Bridge will be included as an example of a concrete arch bridge constructed by a West Virginia bridge builder in educational materials developed as part of the comprehensive mitigation plan. These materials will be distributed to the Elkins Historic Landmark Commission, Randolph County Library and Randolph County Schools as appropriate for content and grade level. The WVSHPO will be given the opportunity to review all educational materials developed for this Stipulation.
- IV. The Shavers Fork Arch Bridge will be documented on a future website listing historic bridges once the West Virginia Historic Bridge Survey is complete.

III. Duration

This MOA will expire if its stipulations are not carried out within five (5) years from the date of its execution. At such time, and prior to work continuing on the undertaking, the FHWA shall either (a) execute a MOA pursuant to 36 CFR 800.6, or (b) request, take into account, and respond to the comments of the ACHP under 36 CFR 800.7. Prior to such time, FHWA may consult with other signatories to reconsider the terms of the MOA and amend it in accordance with Stipulation VIII below. FHWA shall notify the signatories as to the course of action it will pursue.

IV. Post-Review Discoveries

If any unanticipated discoveries of historic properties or archaeological sites, including human burial sites and/or skeletal remains, are encountered during the implementation of this undertaking, work shall be suspended in the area of the discovery until the

WVDOH has developed and implemented an appropriate treatment plan in consultation with the WVSHPO pursuant to 800.13 (b).

V. Monitoring and Reporting

Each year following the execution of this MOA until it expires or is terminated, FHWA shall provide all parties to this MOA a summary report detailing work carried out pursuant to its terms. Such report shall include any scheduling changes proposed, any problems encountered, and any disputes and objections received in FHWA's efforts to carry out the terms of this MOA.

VI. Dispute Resolution

Should any signatory or concurring party to this MOA object at any time to any actions proposed or the manner in which the terms of this MOA are implemented, FHWA shall consult with such party to resolve the objection. If FHWA determines that such objection cannot be resolved, FHWA will:

- A. Forward all documentation relevant to the dispute, including the FHWA's proposed resolution, to the ACHP. The ACHP shall provide FHWA with its advice on the resolution of the objection within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, FHWA shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP, signatories and concurring parties, and provide them with a copy of this written response. FHWA will then proceed according to its final decision.
- B. If the ACHP does not provide its advice regarding the dispute within the thirty (30) day time period, FHWA may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, FHWA shall prepare a written response that takes into account any timely comments regarding the dispute from the signatories and concurring parties to the MOA, and provide them and the ACHP with a copy of such written response.
- C. FHWA's responsibility to carry out all other actions subject to the terms of this MOA that are not the subject of the dispute remain unchanged.

VII. Amendments

This MOA may be amended when such an amendment is agreed to in writing by all signatories. The amendment will be effective on the date a copy signed by all of the signatories is filed with the ACHP.

VIII. Termination

If any signatory to this MOA determines that its terms will not or cannot be carried out, that party shall immediately consult with the other parties to attempt to develop an amendment per Stipulation VII, above. If within thirty (30) days (or another time period agreed to by all signatories) an amendment cannot be reached, any signatory may terminate the MOA upon written notification to the other signatories.

Once the MOA is terminated, and prior to work continuing on the undertaking, FHWA must either (a) execute a MOA pursuant to 36 CFR 800.6, or (b) request, take into account, and respond to the comments of the ACHP under 36 CFR 800.7. FHWA shall notify the signatories as to the course of action it will pursue.

EXECUTION of the Memorandum of Agreement by the FHWA, WVSHPO, the WVDOH and the Council, and implementation of its terms evidence that the FHWA has afforded the Council an opportunity to comment on the Shavers Fork Arch Bridge Replacement project and its effects on historic properties, and that the FHWA has taken into account the effects of the undertaking on the historic property.




Federal Highway Administration

3/15/13
Date



West Virginia Deputy State Historic Preservation Officer

5/9/12
Date



West Virginia Division of Highways

5/23/12
Date



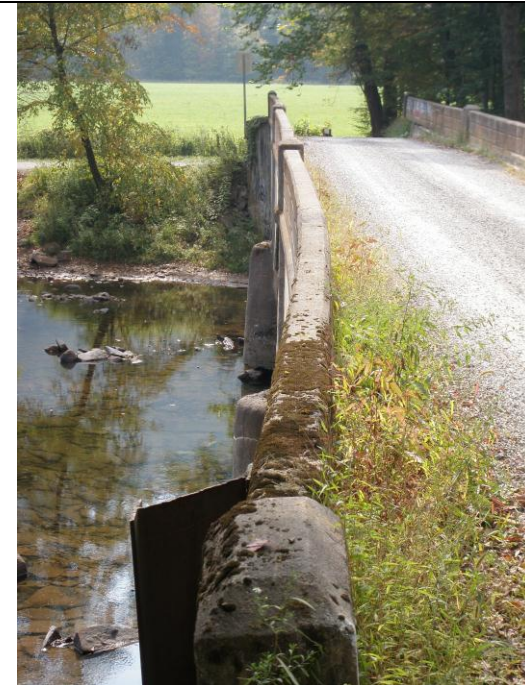
1. East Elevation Looking Upstream, View West



2. End View Looking West Along CR 9/3



3. Deterioration and Cavities Located on Pier 2 (South Pier), View North



4. Railing/Parapet at West/Downstream Side, View Southeast



5. East Elevation Looking Upstream, View West



6. Underside of North Arch, Taken from East Side, View Northwest



7. West Elevation Looking Downstream, View North



8. Northwest Corner Showing North Entry and West Elevation, View SE



9. East Rail/Parapet, Taken from South Entry (CR 9/3 Side), View North



10. West Elevation, View North