



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

**1900 Kanawha Boulevard East • Building Five • Room 110
Charleston, West Virginia 25305-0430 • (304) 558-3505**

**Earl Ray Tomblin
Governor**

**Paul A. Mattox, Jr., P. E.
Secretary of Transportation/
Commissioner of Highways**

July 14, 2014

**Ms. Susan Pierce, Deputy State
Historic Preservation Officer
Division of Culture and History
1900 Kanawha Boulevard, East
Charleston, West Virginia 25305**

Dear Ms. Pierce:

**State Project: S343-47/11-1.15
FR#: 13-977-RT-6
Little Fonzo Bridge Replacement
Ritchie County**

Attached in accordance with the Memorandum of Agreement Stipulations I and II is the State Level Historic Documentation for Little Fonzo Bridge. Also attached is a CD of the documentation. Thank you for your assistance in the progress of this project.

Should you have any questions, please do not hesitate to contact Randy Epperly III of our Environmental Section at (304) 558-9385.

Very truly yours,

A handwritten signature in blue ink that reads "Ben L. Hark".

**Ben L. Hark
Environmental Section Head
Engineering Division**

**H:k
Attachments
bcc: DDE(RE)**

State Level Historic Documentation Report

State Project No. S343-47/11-1.15

Little Fonzo Bridge Ritchie County



Prepared by:

Randy Epperly III, Historian

Department of Transportation
Division of Highways
Engineering Division
Environmental Section

July 14, 2014

STATE LEVEL HISTORIC DOCUMENTATION

LITTLE FONZO BRIDGE

Location: County Route 47/11, over Grassy Run
Ritchie County
West Virginia

USGS Smithville Quadrangle

Date of Construction: 1908

Builder: York Bridge Company

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 Little Fonzo Bridge is eligible under Criterion C of the National Register of Historic Places as an early example of a Warren pony truss design and as an uncommon design for the nationally recognized York Bridge Company.

Project Information: The project has been undertaken due to the poor condition of the structure and warrants replacement. The project will allow for safer crossing and allow more load weight than the existing bridge. The documentation was undertaken in July 2014 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.

Randy Epperly, Historian
West Virginia Division of Highways
Charleston, WV 25305
July 9, 2014

The Little Fonzo Bridge carries County Route 47/11 over Grassy Run in Ritchie County near the town of Fonzo. It was built in 1908, by the York Bridge Company. No original plans were found for the bridge. The bridge is eligible under Criterion C of the National Register of Historic Places as an early example of a Warren Pony Truss design and its association with York Bridge Company, a nationally recognized builder.

Little Fonzo Bridge is a simple span steel riveted pony truss supported by cut stone abutments and wingwalls. The bridge has metal railing and a timber deck. It is 57 feet long and 13 feet wide. The average daily traffic is 40 vehicles per day. The bridge was renovated in 1962 and 1977 in which main members were replaced. The U-bar is not original and there are some riveted connections, bolt repairs, and built up members. (WVDOH Bridge Files).

Metal truss bridges evolved from the wooden truss bridges as stronger materials were needed for railroads and were first built using wrought iron. The Warren truss was popular in covered bridges in West Virginia, but was also used for pony truss bridges. It was first patented in 1848 in Great Britain, but the 1908 Little Fonzo Bridge is one of the earliest uses in West Virginia. The Warren truss is known for its triangles formed by the members connecting the top and bottom chords. A pony truss has parallel superstructures but is not cross braced at the top (Cridlebaugh, 2008).

The York Bridge Company was a nationally recognized bridge builder of metal truss bridges. They were most prolific between the years of 1902 and 1917, after which they became York Bridge and Construction Company (Skelly & Loy). Although they built mostly metal truss bridges, Little Fonzo Bridge was an uncommon design type for them (KCI, 2013).

BIBLIOGRAPHY

Cridlebaugh, Bruce S. Bridges & Tunnels of Allegheny County. 1997-2008.
www.pghbridges.com/index.htm Retrieved 9 July 2014.

KCI Technologies, Inc., and Mead & Hunt, Inc. West Virginia Statewide Historic Bridge Survey:
Final Survey Report. "Volume 1-Survey Report and Historic Context." December 2013.

Skelly and Loy. Bradford County's Truss Bridges. "Bridge Fabrication Companies."
www.skellyloy.com/bctb/bm.htm Retrieved 9 July 2014.

West Virginia Division of Highways, Bridge Files, Maintenance Division, Building 5, Capitol
Complex, Charleston, WV 25305.

STATE LEVEL HISTORIC DOCUMENTATION
INDEX TO PHOTOGRAPHS

Little Fonzo Bridge
County Route 47/11
Grassy Run
Ritchie County, West Virginia

Photographer: Randy Epperly

August 2013

LITTLE FONZO BRIDGE-1	View of Little Fonzo Bridge looking south.
LITTLE FONZO BRIDGE-2	View of Little Fonzo Bridge looking north.
LITTLE FONZO BRIDGE-3	Profile view of Little Fonzo Bridge looking upstream.
LITTLE FONZO BRIDGE-4	View of downstream truss and railing.
LITTLE FONZO BRIDGE-5	View of upstream truss.
LITTLE FONZO BRIDGE-6	View of pin connection.
LITTLE FONZO BRIDGE-7	View of bolted plate on upstream truss.
LITTLE FONZO BRIDGE-8	View of bolted plate on upper truss member.
LITTLE FONZO BRIDGE-9	View of the railing and braces.
LITTLE FONZO BRIDGE-10	View of cut stone.
LITTLE FONZO BRIDGE-11	2012 photo showing bridge builder plate.
LITTLE FONZO BRIDGE-12	Little Fonzo Bridge after bridge builder plate was removed.

There are no original plans.

**MEMORANDUM OF AGREEMENT
BY AND AMONG
THE WEST VIRGINIA STATE HISTORIC PRESERVATION OFFICER
AND THE WEST VIRGINIA DIVISION OF HIGHWAYS
REGARDING IMPLEMENTATION OF THE LITTLE FONZO BRIDGE
REPLACEMENT PROJECT
STATE PROJECT #S343-47/11-1.15
RITCHIE COUNTY, WEST VIRGINIA
MAY 2014**

WHEREAS, the West Virginia Division of Highways (WVDOH) proposes to replace Little Fonzo Bridge which spans Grassy Run in Ritchie County, hereinafter referred to as the Project. The improvements involve the construction of a new bridge at the existing location and the removal of the existing bridge; and

WHEREAS, the WVDOH has determined that the Project will have an adverse effect upon the Little Fonzo 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 contacted the Preservation Alliance of West Virginia and the Ritchie County Historic Landmarks Commission; and

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

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 WVDOH shall ensure that the following stipulations are carried out:

Little Fonzo Bridge

- I. Little Fonzo 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 National Register of Historic Places and National Historic Landmarks Survey Photo Policy Expansion of March 2005.

- II. A brief history of the structure will be included along with fully completed West Virginia Historic Property Inventory forms and copies of plan sheets and drawings of the bridge from WVDOH bridge files if they are available.
- III. 100 color brochures of the Little Fonzo Bridge will be developed by WVDOH and distributed to the Ritchie County Public Library in Harrisville. The WVSHPO will be given the opportunity to review all educational materials developed for this stipulation. A CD containing the brochure will also be given to the library to print brochures when the original total has been exhausted.
- IV. The Little Fonzo Bridge will be featured on a future website listing historic bridges.

V. 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 WVDOH shall execute a MOA pursuant to 82 CSR 2.5.4.d. Prior to such time, WVDOH may consult with other signatories to reconsider the terms of the MOA and amend it in accordance. WVDOH shall notify the signatories as to the course of action it will pursue.

VI. 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 36 CFR 800.13 (b).

VII. Monitoring and Reporting

Each year following the execution of this MOA until it expires or is terminated, WVDOH 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 WVDOH's efforts to carry out the terms of this MOA.

VIII. Amendments

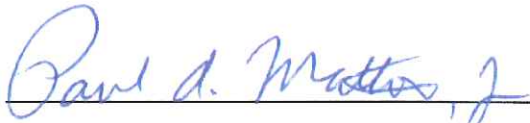
This MOA may be amended when such an amendment is agreed to in writing by all signatories. The amendment will be effective on the date a copy signed by all of the signatories is filed with the SHPO.

IX. 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 VIII, 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, WVDOH must execute a MOA pursuant to 82 CSR 2.5.4.d.

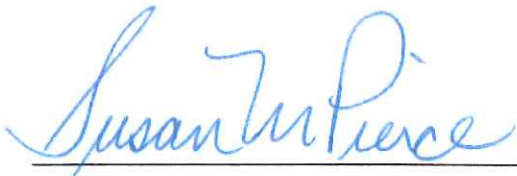
EXECUTION of the Memorandum of Agreement by the WVSHPO and the WVDOH, and implementation of its terms evidence that the WVDOH has afforded the SHPO an opportunity to comment on the Little Fonzo Bridge Replacement project and its effects on historic properties, and that the WVDOH has taken into account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



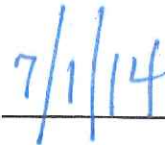
West Virginia Division of Highways



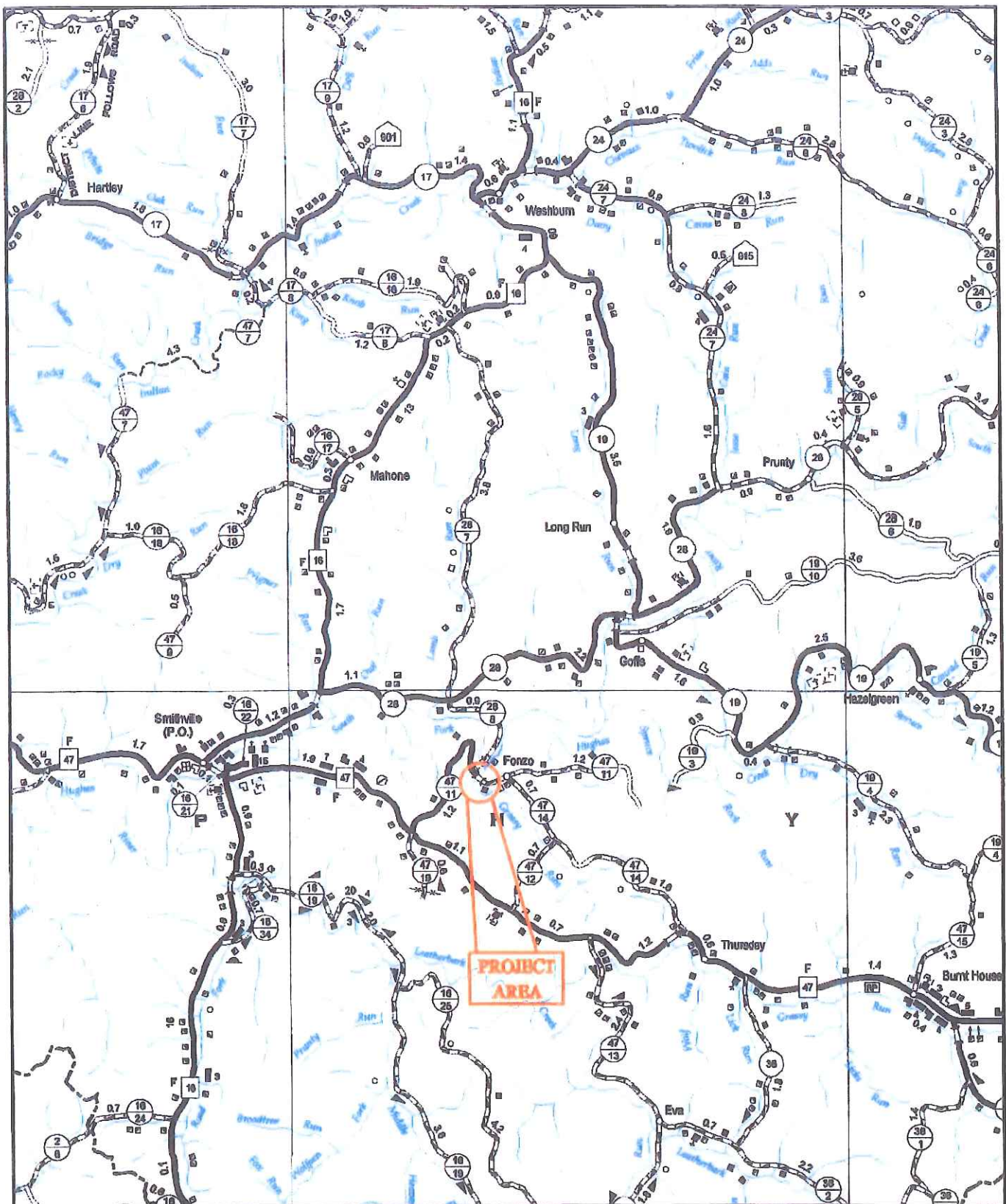
Date



West Virginia Deputy State Historic Preservation Officer

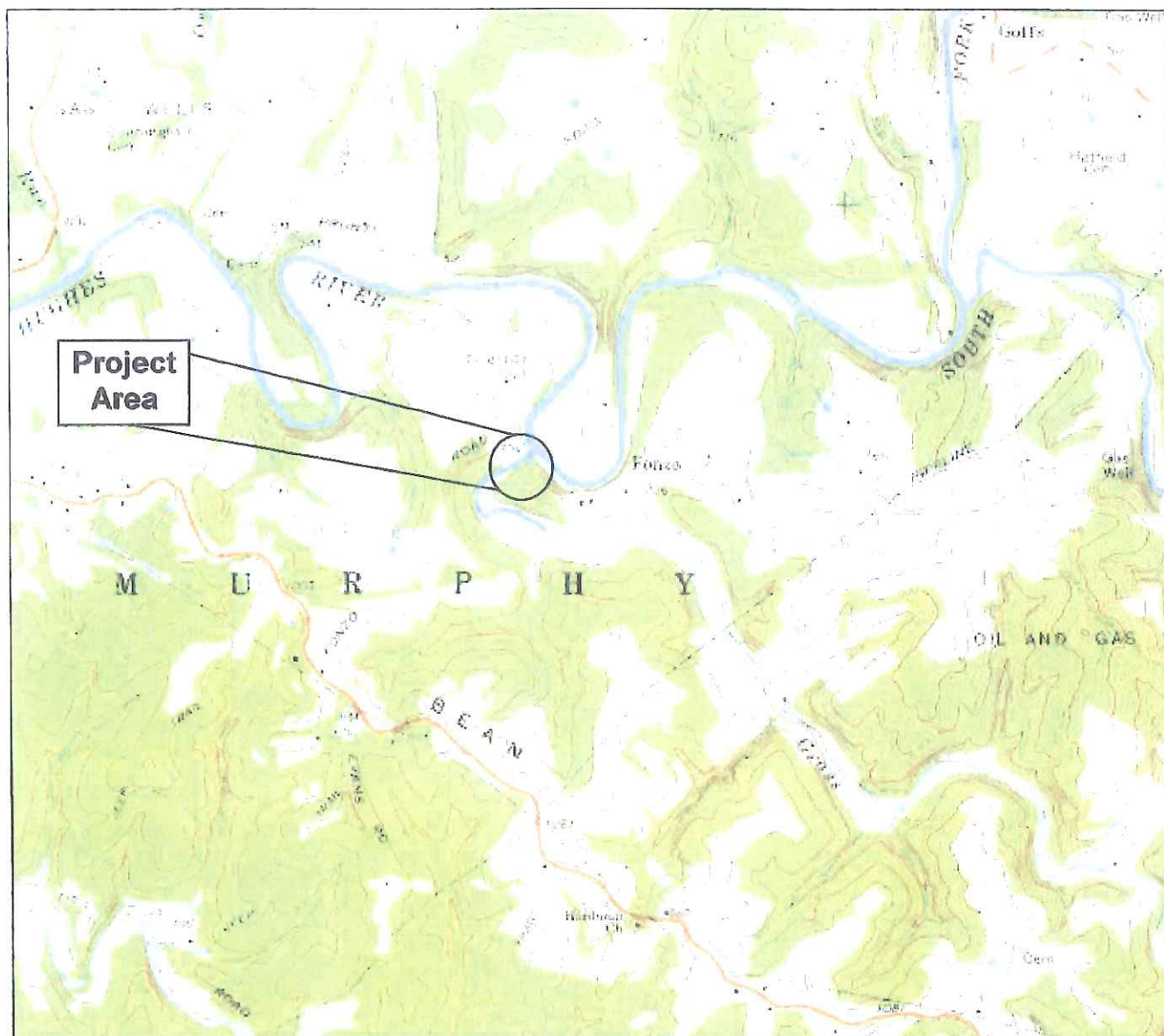


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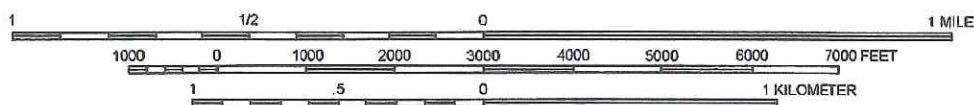
BRIDGE REPLACEMENT STUDY
LITTLE FONZO BRIDGE #43-47/11-1.18
PROJECT NO. S343-47/11-1.15
RITCHIE COUNTY
39° 04'28"N, 81° 03'22"W

WEST VIRGINIA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
DISTRICT THREE BRIDGE DEPARTMENT



Site Plan
Little Fanzo Bridge #43-47/11-1.18

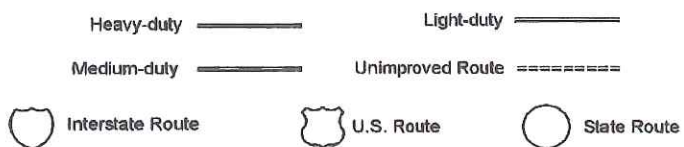
SCALE 1:24000



CONTOUR INTERVAL 20 FEET

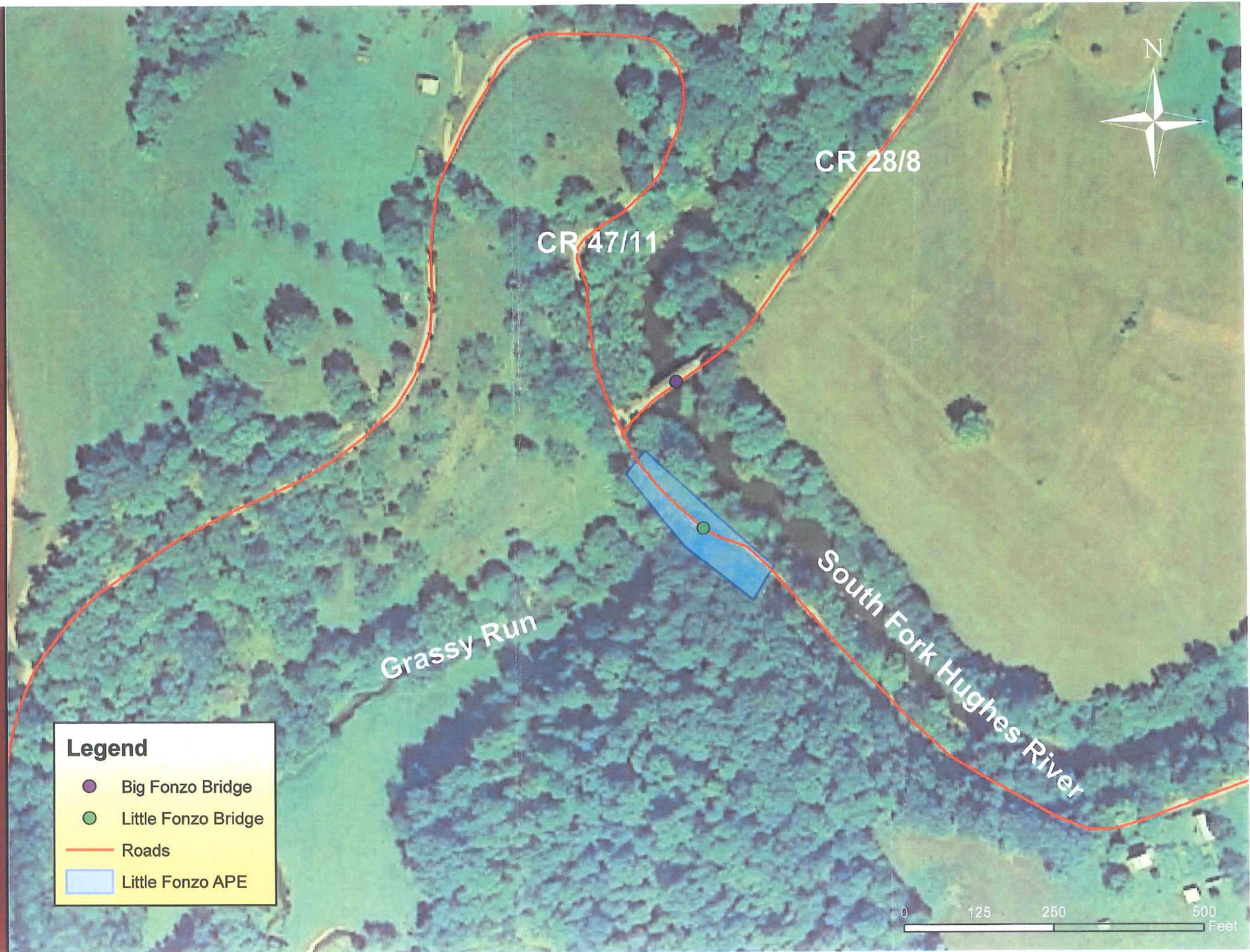
NATIONAL GEODETIC VERTICAL DATUM OF 1929

ROAD CLASSIFICATION



Little Fonzo Bridge
Ritchie County
S343-47/11-1.15

West Virginia Division of Highways
Engineering Division
Environmental Section
Randy Epperly
August 15, 2013



West Virginia Historic Bridge Inventory Form

Bridge No. 43-047/11-001.18 BARS No. 43A101 Federal Bridge No. 00000000043A101 Bridge Design No. 6288.0

IDENTIFICATION INFORMATION

SHPO Survey No. RT-0287 Owner State Highway Agency
Local Name LITTLE FONZO BRIDGE Status Extant - in service
Other Local Name

LOCATIONAL AND SETTING INFORMATION

District 03 County Ritchie Latitude 39042400 Longitude 081031800
Location 0.03 MILE EAST OF CR 28/8 UTM-Northing
Facility Carried By Structure COUNTY ROUTE 47/11 UTM-Easting
UTM Zone
Features Intersected GRASSY RUN Surrounding Land Use Forested
Type of Development Rural - (undeveloped area outside communities)

STRUCTURAL INFORMATION

Main Span Type Steel Truss - Pony/Riveted Structure Length (ft) 54
Main Span Type Code 323 Length of Maximum Span (ft) 54
Number of Spans in Main Unit 001 Average Daily Traffic 000060 Year 2004
Number of Approach Spans 0000 Sufficiency Rating 0353 Skew 00
(Note: Data current as of April 2006 database)

BRIDGE DESCRIPTIVE INFORMATION

Year Built 1908 Arrangement Pony
Year Reconstructed 1977 Connection Type Rivet/bolt/weld
Truss Bridge Type Warren Truss Details
Alteration(s) Date of Alterations (Year)
Replacement of main members 1962
Replacement of main members 1977

Architectural Treatment(s)

Bridge Plate Text

(1) plaque. "BUILT BY YORK BRIDGE COMPANY, YORK PA. 1908"

BRIDGE HISTORY

Engineer or Designer Builder or Fabricator York Bridge Company

Bridge Plan Location None

Additional Details: Timber deck and curb with metal railing. Stone abutments and wingwalls. According to inspection files, main members were replaced in 1962 and 1977. Field observations noted the bridge has riveted connections with some bolt repairs and built-up members. U-bar is not original, and there is evidence of welding. The Warren pony truss is an early example of the type in West Virginia and is an uncommon design for the nationally recognized firm, the York Bridge Company, which typically constructed Pratt trusses.

Bridge No. 43-047/11-001.18 BARS No. 43A101 Federal Bridge No. 0000000043A101 Bridge Design No. 6288.0

NATIONAL REGISTER EVALUATION INFORMATION

National Register Determination

Reason Not Evaluated

National Register Determination Date

This bridge is as an example of the earliest period of use and evolution of its type.

This bridge was designed or constructed by an engineer or firm whose work is distinguishable on the national level.

Although this bridge has undergone alterations, it still retains the historic integrity necessary to convey its engineering significance and, therefore, is eligible for the National Register under Criterion C.



West Virginia Historic Bridge Inventory Form
Form Prepared By Mead & Hunt and KCI
Form Preparation Date 2011



1. View of Little Fonzo Bridge looking south.



2. View of Little Fonzo Bridge looking north.



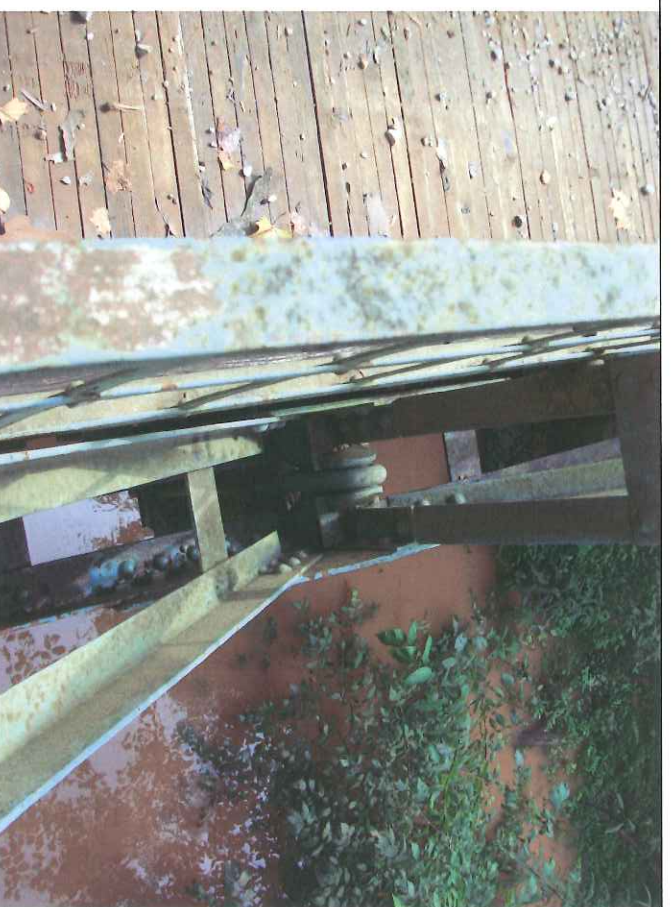
3. Profile view of Little Fonzo Bridge looking upstream.



4. View of downstream truss and railing.



5. View of upstream truss.



6. View of pin connection.



7. View of bolted plate on upstream truss.



8. View of bolted plate on upper truss member.



9. View of railing and braces.



10. View of cut stone.



11. 2012 photo showing bridge builder plate.



12. Little Fonzo Bridge after bridge builder plate was removed