



Mt. Gay Deck Arch Bridge (LG-0758/LG-0764)
Logan County, West Virginia
State Project #S323-119/26-0.42
Federal Project #STP-1192(050)D



State Level of Historic Documentation
Bridge Number: 23—119/26—000.42
Federal Bridge Number: 00000000023A151

GAI Project Number: C121823.03

September 2016



Prepared by: GAI Consultants, Inc.
The BB&T Building
300 Summers Street, Suite 1100
Charleston, West Virginia 25301

Prepared for: West Virginia Department of Transportation
Division of Highways
1334 Smith Street
Charleston, West Virginia 25301

State Level of Historic Documentation

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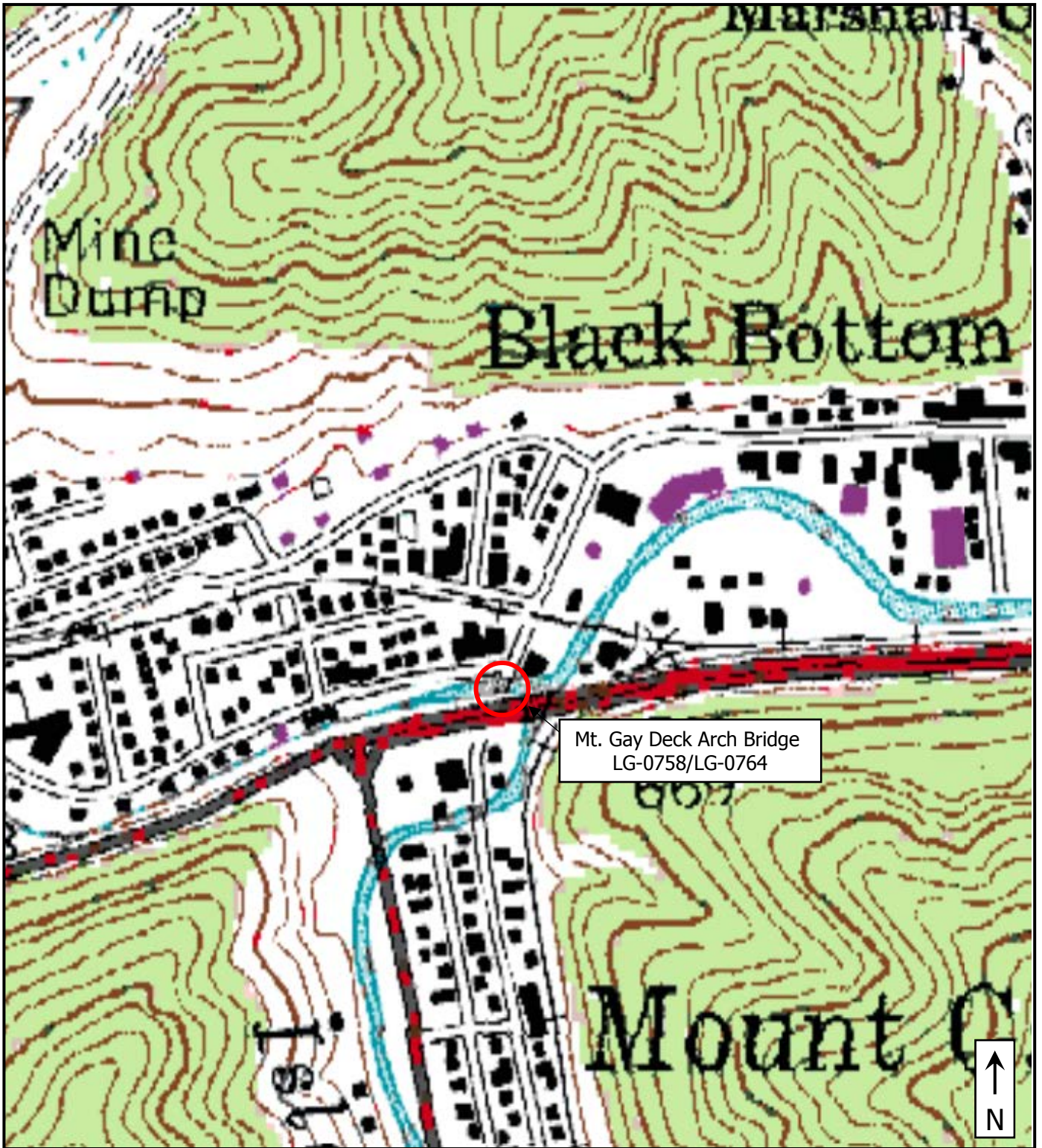
Elizabeth H. Williams, Senior Architectural Historian

GAI Consultants, Inc.

The BB&T Building

300 Summers Street, Suite 1100

Charleston, West Virginia 25301



SOURCE: UNITED STATES GEOLOGICAL SURVEY, HOLDEN, WV QUADRANGLE, 7.5 MINUTE SURVEY, 1963, PHOTOREVISED 1989.



Resource Location

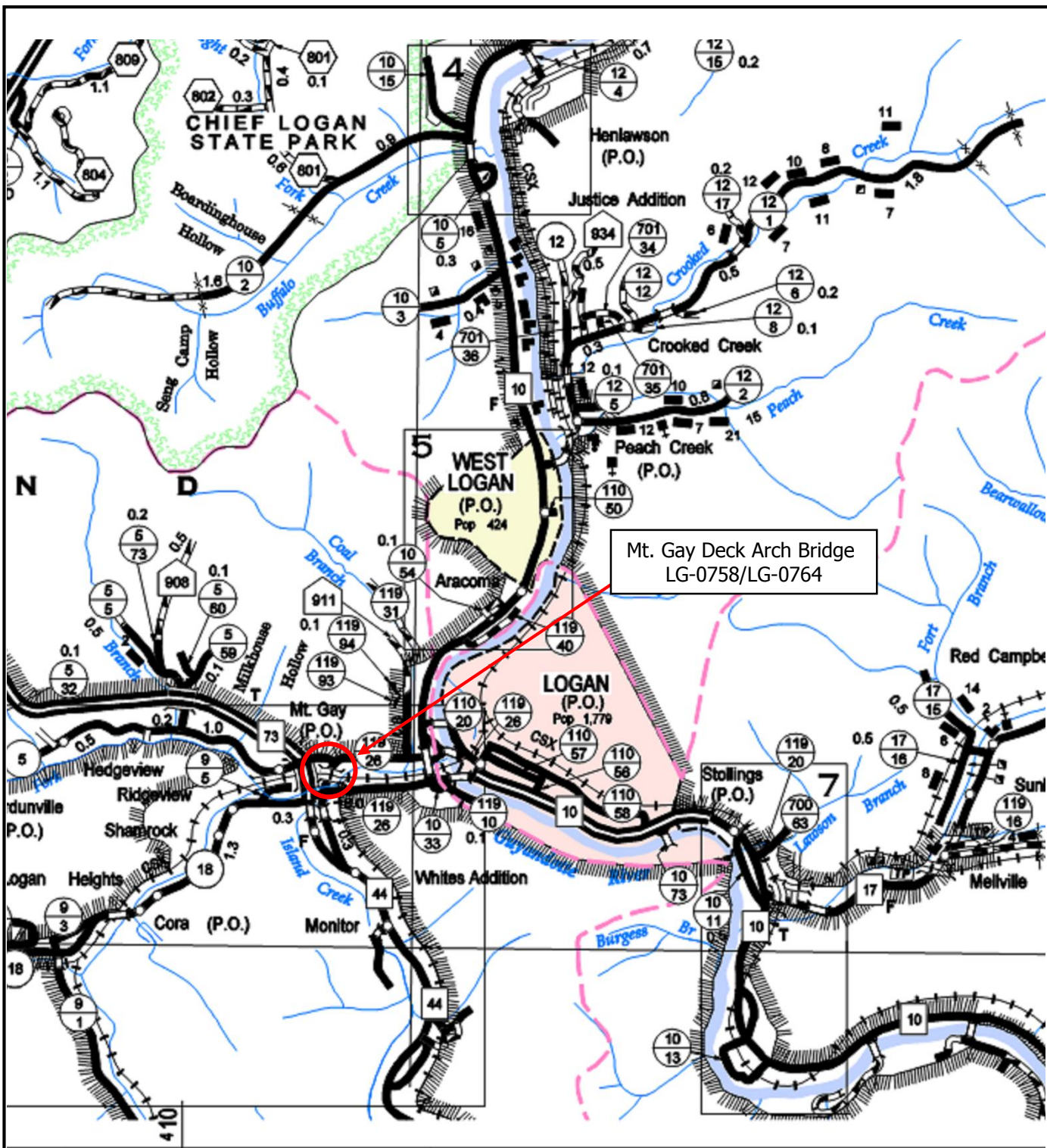
USGS MAP
 MT. GAY DECK ARCH BRIDGE (LG-0758/LG-0764)
 MOUNT GAY, LOGAN COUNTY



MT. GAY/NORTH WHITES ADDITION BRIDGE
 REPLACEMENT PROJECT

DRAWN: EHW
 CHECKED: TDB

DATE: 05/25/2016
 APPROVED: JG



Mt. Gay Deck Arch Bridge
LG-0758/LG-0764

SOURCE: WEST VIRGINIA DEPARTMENT OF
TRANSPORTATION PLANNING DIVISION,
JAN,2014.

WV STATE HIGHWAY MAP
MT. GAY DECK ARCH BRIDGE (LG-0758/LG-0764)
MOUNT GAY, LOGAN COUNTY



MT. GAY/NORTH WHITES ADDITION BRIDGE
REPLACEMENT PROJECT

DRAWN: SJS
CHECKED: AJW

DATE: 09/13/2016
APPROVED:



Mt. Gay Deck Arch Bridge
LG-0758/LG-0764



SOURCE: GOOGLE EARTH, 2016.



Resource Location

MODERN AERIAL
MT. GAY DECK ARCH BRIDGE (LG-0758/LG-0764)
MOUNT GAY, LOGAN COUNTY



MT. GAY/NORTH WHITES ADDITION BRIDGE
REPLACEMENT PROJECT

DRAWN: EHW
CHECKED: TDB

DATE: 05/25/2016
APPROVED: JG



SOURCE: WV FLOOD TOOL SUPPORTED BY FEMA, WV NFIP, AND WV GIS TECHNICAL CENTER, SEPT,2016.

FLOOD MAP
 MT. GAY DECK ARCH BRIDGE (LG-0758/0746)
 MOUNT GAY, LOGAN COUNTY

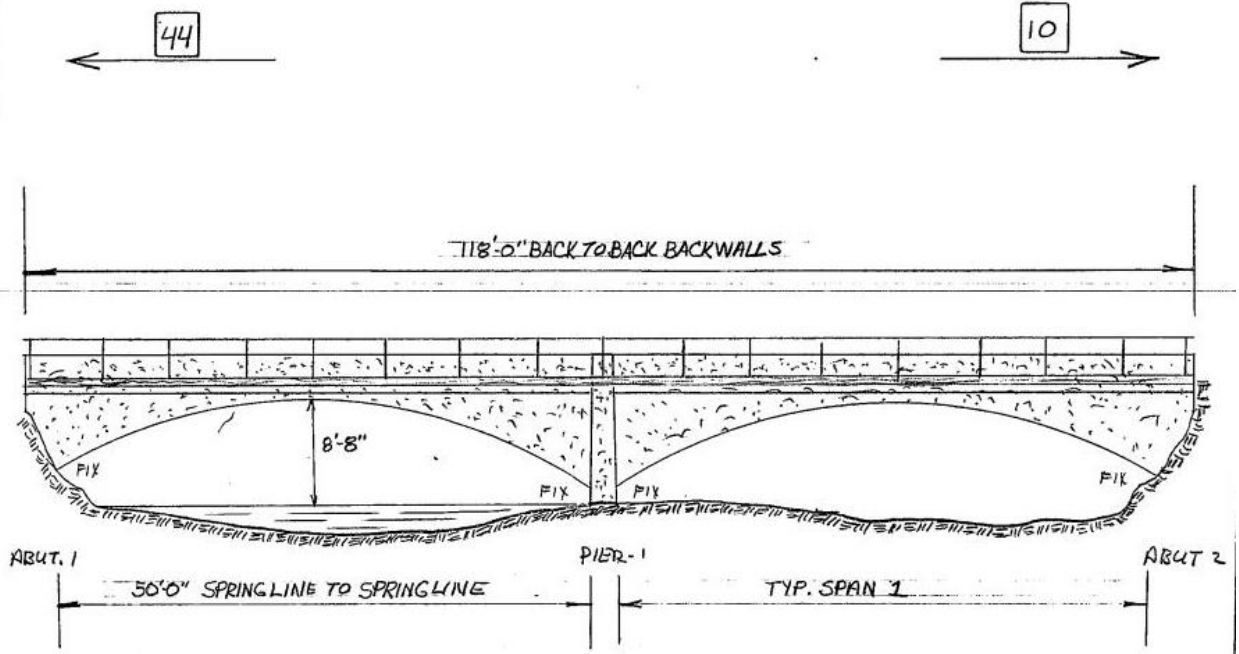


MT. GAY/NORTH WHITES ADDITION BRIDGE
 REPLACEMENT PROJECT

DRAWN: SJS
 CHECKED: AJW

DATE: 09/13/2016
 APPROVED:

YR. BLT. 1917 / S.C.D.A. / 20° SKEW, RT. FORWARD.



7-23-98 THE SIDEWALK WAS REMOVED FROM THE STRUCTURE 11/11/96

ELEVATION

(LOOKING UPSTREAM)

SOURCE: West Virginia Division of Highways, 1998, Bridge Inspection Report, Mt. Gay Deck Arch Over Mud Fork, County Route 119/26 (SLS), 0.03 Mile West of County Route 5, Logan County, District Two, Non-NHS, A.D.T. 2,000 - Year 1989. Revised July 23, 1998.

INSPECTION DRAWING
MT. GAY DECK ARCH BRIDGE (LG-0758/LG-0764)
MOUNT GAY, LOGAN COUNTY



MT. GAY/NORTH WHITES ADDITION BRIDGE
REPLACEMENT PROJECT

DRAWN: SJS
CHECKED: AJW

DATE: 09/14/2016
APPROVED: BR

WEST VIRGINIA HISTORIC BRIDGE RECORDATION

Mt. Gay Deck Arch Bridge (LG-0758/LG-0764)

Bridge Number: 23--119/26--000.42

Federal Bridge Number: 0000000023A151

- Location: Mt. Gay Deck Arch Bridge carrying Riverview Avenue (CR-119/26), spanning Copperas Mine Fork, Mount Gay, Logan County, West Virginia.
- USGS Quadrangle: Holden, West Virginia [7.5-Minute Series, 1963 (Photorevised 1989)]
- UTM Coordinates: 17/411253.75 m E/4189231.49 m N
- Date of Construction: 1917
- Engineer: Daniel B. Luten
- Builder: Luten Bridge Company, York, Pennsylvania.
- Present Owner: West Virginia Department of Transportation
Division of Highways
1334 Smith Street
Charleston, West Virginia 25301
- Present Use: Vehicular Bridge. Pedestrian sidewalk removed in 1996. Scheduled for removal and replacement.
- Significance: The Mt. Gay Deck Arch Bridge is historically and technologically significant as an example of a Luten Arch Bridge, a design patented by Daniel B. Luten, nationally-recognized bridge engineer. Constructed by the Luten Bridge Company, the bridge was constructed in 1917 and spans Copperas Mine Fork. The 118-foot-long bridge contains an 18-foot-wide concrete deck with a concrete parapet decorated with incised rectangles. The bridge is supported by concrete abutments with two, 50-foot arched spans. The bridge stands as an extant example of the Luten Arch, a patented design significant for its innovative use of reinforcements used to alleviate tension and load, which created a significantly lighter bridge. The bridge is eligible for listing in the National Register of Historic Places under Criterion C.
- Project Information: This documentation was conducted on behalf of WVDOH owing to the poor condition of the bridge structure. Future deterioration of the bridge would likely lead to bridge closure; therefore, the existing structure warrants replacement. The recordation was conducted in May 2016 in accordance with a Memorandum of Agreement between the West Virginia Department of Transportation and the West Virginia State Historic Preservation Office. These measures are required prior to the replacement of this National Register-eligible structure. The project was completed as part of the Mt. Gay Deck Arch Bridge/North Whites Addition Bridge Replacement Project.

Elizabeth H. Williams, Senior Architectural Historian
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Charleston, West Virginia 25301

Summary and Description of Bridge and Setting

The Mt. Gay Deck Arch Bridge is located in the vicinity of the communities of Mount Gay, Black Bottom and Cherry Tree, Logan County, West Virginia and carries Riverview Avenue (CR 119/26) over Copperas Mine Fork, west of its confluence with Island Creek. The bridge spans the fork in a northeast-southwest direction and provides vehicular access to the community of Black Bottom to the north, and Mount Gay and Cherry Tree to the south. A pedestrian walkway was located on the east side of the bridge, however, it was removed in November 1996.

The Mt. Gay Deck Arch Bridge was determined to be eligible for listing in the National Register of Historic Places (NRHP) under Criterion C in 2013; this determination was concurred by the West Virginia Division of Culture and History (WVDCH). It should be noted that no other information was uncovered to suggest the Mt. Gay Deck Arch Bridge meets any other NRHP eligibility criteria.

The Mt. Gay Deck Arch Bridge is located north of the once bustling community of Mount Gay, a small mining town located approximately 0.95-mile southwest of the City of Logan. Mount Gay thrived in the early-twentieth century during the height of the coal era in Logan County and West Virginia. The majority of the extant structures in Mount Gay and Cherry Tree are late-nineteenth and early-twentieth century frame residential and masonry commercial buildings concentrated in an area south of the Mt. Gay Deck Arch Bridge, on the east and west sides of Riverview Avenue. According to historic-era photographs, the area surrounding the Mt. Gay Deck Arch Bridge was once a bustling area of commercial buildings known as Monitor Junction. Few historic-era commercial buildings are extant in the immediate vicinity of the bridge, having been demolished for the construction of the Mt. Gay Overpass.

The Mt. Gay Overpass (LG-0749/Bridge No. 23-073/00-002.31) was constructed in 1956 and spans Riverview Avenue and a portion of the Mt. Gay Deck Arch Bridge, which has significantly diminished its integrity of setting. A trestle (LG-0086) carries the former Chesapeake and Ohio (current CSX) Railroad over Riverview Avenue, approximately 250 feet north of the bridge. Non-historic commercial infill comprises the majority of the area, which has also diminished the integrity of the bridge's setting.

The one-lane, two-span, spandrel-filled concrete deck arch bridge measures 118 feet in length, and 18 feet in width. The concrete deck measures 16.5 feet between two 36-inch-high and eight-inch-thick parapets. The parapets are decorated with incised rectangles on their interior and exterior. The deck thickness measures 10 inches, with nine inches of asphalt. The two concrete abutments are built into the north and south banks of the Copperas Mine Fork which is surrounded by dense vegetation.

Two concrete arches measure 50 feet from the abutment to the central concrete pier. The pier is approximately 43 inches thick and measures, on average, nine feet to the bottom of the superstructure. The average height of the arches is eight feet eight inches. A sidewalk measuring three feet and six inches wide was removed from the east side of the bridge in November 1996. Steel reinforcements from the sidewalk are extant on the exterior wall. Steel hooks with chains have been hung over the east parapet wall and carry a polyvinyl chloride pipe above the Copperas Mine Fork. The bridge is askew approximately 20 degrees, right forward (WVDOH 1998).

A plaque on the interior of the bridge's east parapet indicates a construction year of 1917. The bridge was constructed by the Luten Bridge Company of York, Pennsylvania. The Luten Bridge Company built numerous bridges throughout the United States designed by Daniel B. Luten, especially in the southeast. The patented Luten Arch Bridge was an innovative design that used reinforcements to alleviate tension and load, which created a significantly lighter bridge.

The condition of the superstructure is deteriorated, with corrosion in the parapets and vegetation entering the deck of the superstructure from below. Corrosion has also occurred around the supports of the removed sidewalk. The arches have deteriorated slightly, with more corrosion occurring in the southernmost arch which spans the majority of Copperas Mine Fork. Field survey revealed that the bridge is heavily trafficked, as Riverview Avenue is an alternate route to the City of Logan from Route 44.

The bridge is significant due to its association with the development of the Luten Arch, with this being a relatively early example of the application of Daniel B. Luten's 1900 patent. The Luten Arch was an important advancement in the design and engineering of bridges. The Mt. Gay Deck Arch Bridge is unique in that it is one of a set of "twin" paired bridges with the identical North Whites Addition Arch Bridge (LG-0757) which is located approximately 0.07-mile to the south. Luten's use of the transverse and reinforced concrete allowed his bridges to be lighter, and he obtained more than 30 patents in his lifetime. By 1919, Luten, who was born in Grand Rapids, Michigan, and based in Indianapolis, Indiana, claimed to have designed approximately 17,000 arches, with examples of the design being found in all but three states. Luten graduated from the University of Michigan in 1894 with a degree in civil engineering, and his Luten Bridge Company maintained offices in York, Pennsylvania; Clarksburg, West Virginia; Huntington, West Virginia; Atlanta, Georgia; and Palatka, Florida. His pioneering designs are significant as they are still adapted and in use today.

Summary History of Area and Mt. Gay Deck Arch Bridge

Logan County, Virginia was formed in 1824 and named in honor of the famous Mingo chief. The Village of Logan was first established as Lawnsville in 1827 with the construction of the Logan County Courthouse. It was incorporated in 1852 with the name of Aracoma (Spence 1976). Its first mayor was Thomas Dunn English who wrote the famous poem "Ben Bolt" in 1843 (Logan County, WV History and Nostalgia, 2016a). On June 20, 1863 West Virginia seceded from the Confederate State of Virginia and joined the Union. The Aracoma name was changed to Logan in 1907.

The first coal mine in the region was opened in 1904 by Harry S. Gay, Sr., the result of many efforts and enterprise of three generations of his family (Logan County, WV History and Nostalgia 2016a). Gay himself was trained as a mining engineer, and was the grandson of Samuel Gay. Samuel Gay came to the coal fields of southern West Virginia early on with William McQuail, where for a time they operated under the name of the Turkey Gay Coal Company in the Pocahontas District in Mercer and McDowell Counties, southeast of Logan (Logan County, WV History and Nostalgia, 2016a). H.S. Gay, Sr., however, was the true pioneer in the Logan region. He was born in Mount Carmel, Pennsylvania and trained in the technical fields at Lafayette College; he later worked as a mining engineer in the anthracite fields of northeastern Pennsylvania and New Jersey. He first arrived in Logan County in 1903 in order to prepare a report on the coal fields for a coal company in Shamokin, Pennsylvania. While there he located the Monitor-Yuma Land lease and acquired for himself a lease of 800 acres, which later grew to become the Gay Coal and Coke Company (Logan County, WV History and Nostalgia 2016a). He shipped the first car load of coal on Thanksgiving Day in 1904 (Atkins 2013).

As with much of Logan County, the history of the Mt. Gay hamlet of Cherry Tree is tied to coal. Cherry Tree was originally laid out as a town in 1905 by W. P. Henritze, who called it the Henritze Addition to the town of Logan (Atkins 2013). Henritze anticipated the need for quality housing as part of the booming coal industry, as Henry S. Gay had just established his Gay Coal and Coke Company operations in this section of the Island Creek valley in 1904. At nearly the same time, in 1902, William H. Coolidge and Albert F. Holden bought a substantial tract of 30,000 acres on Cooperas Fork of Island Creek with the intent of establishing a significant coal mining enterprise, later called the Island Creek Coal Company (Dobson, Stone, and Valente 1991; West Virginia Encyclopedia 2016a). They built a railroad line from Logan which later became part of the Chesapeake and Ohio Railroad (C&O), which at the time had just completed its Guyan Valley Extension. As a result, Mt. Gay had important rail access to Logan and hence to wider markets via the C&O network. The name of "Cherry Tree," or "Cherry Tree Bottom" was the common name given to the Henritze Addition, particularly the upper section, due to the existence of several large cherry trees at the outskirts of the settlement (Atkins 2013). When the town was first laid out, a man by the name of White had a farm on the south side of Island Creek, which later came to be known as "White's Addition." The original thoroughfare, now Riverview Avenue, was called Cherry Street, and an early local name for the lower section of the village was "Lower Ram Cat." The back alley that runs parallel to the main thoroughfare was often called "Ram Cat Alley" (Atkins 2013).

Due to its proximity to both the Island Creek and Henry S. Gay holdings, Cherry Tree experienced a building boom during the first two decades of the twentieth century, and by 1930 had its own primary school, church, four grocery stores, a bakery, a gas station, and several dozen residences, in addition to numerous other small business enterprises. The Logan Baking Company, which was later renamed Butter Crust Bread, and subsequently acquired by Sunbeam Bread, began as a small enterprise founded by Italian immigrants Dante Belladonna, Patsy Ferzacci, and Miller Farley, and later grew into a significant employer for the small town (Atkins 2013). Their "butter crust bread" was well-known and distributed throughout West Virginia. It was eventually bought by the Sunbeam Bread Company, and later became home to National Cable Repair. R.C. Cola also had a bottling plant, operated by a man named Hill Rigdon, on the east side of Riverview, directly south of the White's Addition Bridge; this structure is no longer extant (Davidson and McCormack 2012).

The primary house of worship, Pilgrim Holiness Church, was a religious denomination associated with the holiness movement that split from the Methodist Episcopal Church in 1897. It was first organized in Cincinnati, Ohio as the International Holiness Union and Prayer League and was rechristened the Pilgrim Holiness Church in 1922. A movement to establish a branch in Cherry Tree began with spirited tent revival meetings in the first decade of the twentieth century followed by the raising of the church, circa 1920 (McCormack 2012). The congregation grew to include a nearby church camp in the mountains. The organization eventually merged with the Wesleyan Methodists in 1968 to form the Wesleyan Church. Despite the town's somewhat isolated location in the flat bottom between steep mountains, it did have street lights and sidewalks prior to 1930, although the roads remained unpaved for many years. The town continued to serve as a predominantly coal mining town, and was home to several interesting individuals, including Red Berry, said to be the brother of the famous musician Chuck Berry, and many immigrant families from southern and eastern Europe (Davidson and McCormack 2012).

The history and heritage of Cherry Tree and Logan County remained intimately connected with coal for many years. Logan County witnessed one of the most famous coal mining labor incidents, the 1921 Blair Mountain Battle (West Virginia Encyclopedia 2016b). This was one of the largest armed uprisings since the American Civil War. The murder of Sid Hatfield, who had become a hero to coal miners when he stood up to the Baldwin Felts Mine Guards during the 1920 Matewan Massacre, incensed coal miners across the State of West Virginia and resulted in the uprising of more than 10,000 armed miners (West Virginia Encyclopedia 2016b). These groups marched to free Mingo County from what they viewed as oppressive control by coal companies; the force was met by a heavily armed contingent supported by coal companies on the Logan County line. This battle continued for several days until the U.S. Military was called in and eventually stopped the marching miners.

Logan County is also home to another infamous mining incident, the Buffalo Creek Disaster. The Buffalo Creek Flood accident occurred on February 26, 1972 when a coal slurry impoundment dam built on a hillside in Logan County (by the Pittston Coal Company) burst four days after being declared 'satisfactory' by a federal mine inspector (Logan County, WV History and Nostalgia 2016b). The resulting flood unleashed approximately 132 million gallons of black waste water upon the residents of 16 coal mining communities in Buffalo Creek Hollow. Out of a population of 5,000 people, 125 people were killed, 1,121 were injured and over 4,000 were left homeless. No less than 507 houses were destroyed, in addition to 44 mobile homes and 30 businesses (Logan County, WV History and Nostalgia 2016b). The incident completely leveled the town of Saunders, West Virginia.

Unfortunately, with the slow demise of the coal industry beginning after World War II, Cherry Tree began to see a gradual decline in its population and businesses. This was exacerbated by the expansion of SR 44, along with the eventual widening and reconfiguring of U.S. 119 in the 1950s. The new SR 44 resulted in the demolition of an entire row of residences in Cherry Tree as well as the elimination of the original primary school house, and the small hamlet began a slow decline into obscurity. Today, it is a shadow of its former self, with many of the frame dwellings in dilapidated or deteriorated condition and many of the businesses gone.

Sources

Atkins, Eddie

2013 "History of Cherry Tree." <http://wp.cherrytreewv.com/2013/06/notes-from-eddie-atkins/>

Davidson, Bruce, and Robert McCormack.

2012 "Map of Cherry Tree / Residents." <http://wp.cherrytreewv.com/2012/05/cherry-tree-map-residents/>

Dobson, Cindy, Stacy Stone, and Kim Valente

1991 "Coal Heritage Survey: Southern West Virginia Reconnaissance Study of Sites Related to the History of Coal Mining." *Phase I Final Report: Boone, Mingo, Wyoming, McDowell and Logan Counties. 8 November 1991.* West Virginia State Historic Preservation Office, Charleston, WV.

Logan County, WV, History and Nostalgia

2016a Harry S. Gay, Jr. – Gay Coal and Coke Company. <http://loganwv.us/harry-s-gay-jr/>

2016b The Buffalo Creek Disaster. <http://loganwv.us/the-buffalo-creek-disaster/>

McCormack, Robert.

2012 "Pilgrim Holiness Church." <http://wp.cherrytreewv.com/2012/05/pilgrim-holiness-church-cherry-tree-wv/>

Spence, Robert Y.

1976 *The Land of the Guyandot.* Harlo Press, Detroit, MI.

United States Geological Survey

2016 USGS Historical Topographic Map Explorer. <http://historicalmaps.arcgis.com/usgs>.

West Virginia Division of Highways (WVDOT)

1998 *Bridge Inspection Report*, Mt. Gay Deck Arch Over Mud Fork, County Route 119/26 (SLS), 0.03 Mile West of County Route 5, Logan County, District Two, Non-NHS, A.D.T. 2,000 – Year 1989. Revised July 23, 1998.

West Virginia Encyclopedia

2016a "Island Creek Coal Company." <http://www.wvencyclopedia.org/articles/914>

2016b "Battle of Blair Mountain." <http://www.wvencyclopedia.org/articles/532>

West Virginia Historic Bridge Inventory Form

Bridge No. 23-119/26-000.42 BARS No. 23A151 Federal Bridge No. 00000000023A151 Bridge Design No. 5856.0

IDENTIFICATION INFORMATION

SHPO Survey No. LG-0758 Owner State Highway Agency
Local Name MOUNT GAY DECK ARCH Status Extant - in service
Other Local Name

LOCATIONAL AND SETTING INFORMATION

District 02 County Logan Latitude 37510000 Longitude 082003600
Location 0.03 MI WEST OF CR 5 UTM-Northing
Facility Carried By Structure CR 119/26 UTM-Easting
UTM Zone
Features Intersected MUD FORK Surrounding Land Use Commercial
Type of Development Town - (small communities and hamlets)

STRUCTURAL INFORMATION

Main Span Type Concrete Arch - Deck (continuous) Structure Length (ft) 118
Main Span Type Code 211 Length of Maximum Span (ft) 50
Number of Spans in Main Unit 002 Average Daily Traffic 004000 Year 2001
Number of Approach Spans 0000 Sufficiency Rating 0296 Skew 00
(Note: Data current as of April 2006 database)

BRIDGE DESCRIPTIVE INFORMATION

Year Built 1917 Arrangement
Year Reconstructed Connection Type
Truss Bridge Type Truss Details
Alteration(s) Date of Alterations (Year)
Sidewalk removal 1996

Architectural Treatment(s)
Decorative pier nose

Bridge Plate Text
(1) plaque. "1917 LUTEN BRIDGE CO. YORK, PA."

BRIDGE HISTORY

Engineer or Designer Unknown Builder or Fabricator Lutten Bridge Company
Bridge Plan Location Unknown

Additional Details: Sidewalk on downstream side was removed in November of 1996. Concrete parapet with incised rectangular panels. Decorative pier nose. Nearby bridge encroaches on approach and impacts setting. Multi-span closed spandrel elliptical arch. WVDOH bridge database records indicate the bridge was constructed by the Lutten Bridge Company. Bridge possesses distinctive nonsymmetrical design that was a patented feature of Daniel B. Lutten and this feature indicates that the bridge incorporates engineering design related directly to the work of Daniel B. Lutten, a nationally recognized bridge designer.

NATIONAL REGISTER EVALUATION INFORMATION

National Register Determination

Reason Not Evaluated

National Register Determination Date

This bridge exhibits continuous span design, demonstrating important engineering design or technology as a variation within its class.

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

This bridge displays one or more architectural treatments.

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



Internal Rating: _____

WEST VIRGINIA HISTORIC PROPERTY INVENTORY FORM

Street Address Riverview Avenue over Copperas Mine Fork	Common/Historic Name/Both <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> Mt. Gay Deck Arch Bridge	Field Survey # LG-0758	Site # (SHPO Only) LG-0758/LG-0764
Town or Community Mount Gay	County Logan	Negative No.	NR Listed Date
Architect/Builder Luten Bridge Company	Date of Construction 1917	Style Luten Arch Bridge/Spandrel Filled Deck Arch Bridge	
Exterior Siding/Materials Concrete	Roofing Material N/A	Foundation Not Observed	
Property Use or Function Residence <input type="radio"/> Commercial <input type="radio"/> Other <input checked="" type="radio"/>	UTM# 17/411253.75 m E/4189231.49 m N		
Survey Organization & Date GAI Consultants May 2016	Quadrangle Name Holden		
	Part of What Survey/FR#		

Sketch Map of Property
Or Attach Copy of USGS Map

Site No.

N



Present Owners West Virginia Division of Highways	Owners Mailing Address 1900 Kanawha Blvd E Charleston, WV 25305
Phone # (304) 558-3505	

Describe Setting

The Mt. Gay Deck Arch Bridge spans the Copperas Mine Fork and is located north of the community of Mount Gay in Logan County. The bridge is situated underneath the Mt. Gay Overpass (LG-0749) in an area comprised of few commercial buildings. The area was once called Monitor Junction and contained many commercial buildings built around the bridge. Demolition occurred for the construction of the overpass and most of the buildings were demolished.

_____ Acres

Archaeological Artifacts Present

Description of Building or Site (Original and Present) _____ **Stories** _____ **Front Bays**

The one-lane, two-span, spandrel-filled concrete deck arch bridge was built in 1917 and measures 118 feet in length, and 18 feet wide. The concrete deck measures 16.5 feet between two 36 inch high and eight inch thick parapets. The parapets are decorated with incised rectangles on the interior and exterior sides. The deck thickness measures 10 inches, with nine inches of asphalt. The two concrete abutments are built into the north and south banks of the Copperas Mine Fork, a tributary of Island Creek. The two concrete arches measure 50 feet from the abutment to the central concrete pier. The pier is approximately 43 inches thick and measures on average 9 feet to the bottom of the superstructure. The average height of the arches is 8 feet and 8 inches. A sidewalk was removed from the east side of the bridge in November 1996. The sidewalk was 3 feet and 6 inches wide. The steel reinforcements from the sidewalk are extant on the exterior wall. Steel hooks with chains have been hung over the east parapet wall and carry a plastic pipe above the Copperas Mine Fork. The bridge is askew approximately 20 degrees, right forward. Dense vegetation surrounds the abutments on the banks of the Copperas Mine Fork.

(Use Continuation Sheets)

Alterations

Yes **No** **If yes, describe**
 A sidewalk was removed from the exterior east wall in November 1996

Additions

Yes **No** **If yes, describe**
 A plastic pipe held up by metal hooks and chains spans has been attached to the east wall

Describe All Outbuildings

N/A

(Use Continuation Sheets)

Statement of Significance

No information was recovered linking this resource to any events contributing to broad patterns of history on the local or national level. Therefore, this resource is recommended not eligible for NHRP listing under Criterion A. It does not appear that this bridge was connected to individuals of significant importance to local, state, or national history. Therefore, this resource is recommended not eligible for NHRP listing under Criterion B. This bridge was previously determined by WV SHPO as eligible under Criterion C as the work of a master due to it possessing the distinctive rounded arch ring detail and nonsymmetrical design that was a patented feature of Daniel B. Luten. The incorporation of Luten's innovative engineering designs qualify this work as an intact example of a nationally recognized bridge designer and civil engineering pioneer. Although some deterioration has occurred, the bridge still maintains the historic integrity necessary to convey its engineering significance and, therefore, is eligible for NRHP listing under Criterion C.

(Use Continuation Sheets)

Bibliographical References

See Attachment.

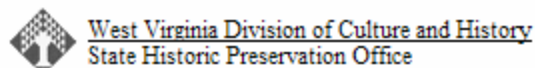
(Use Continuation Sheets)

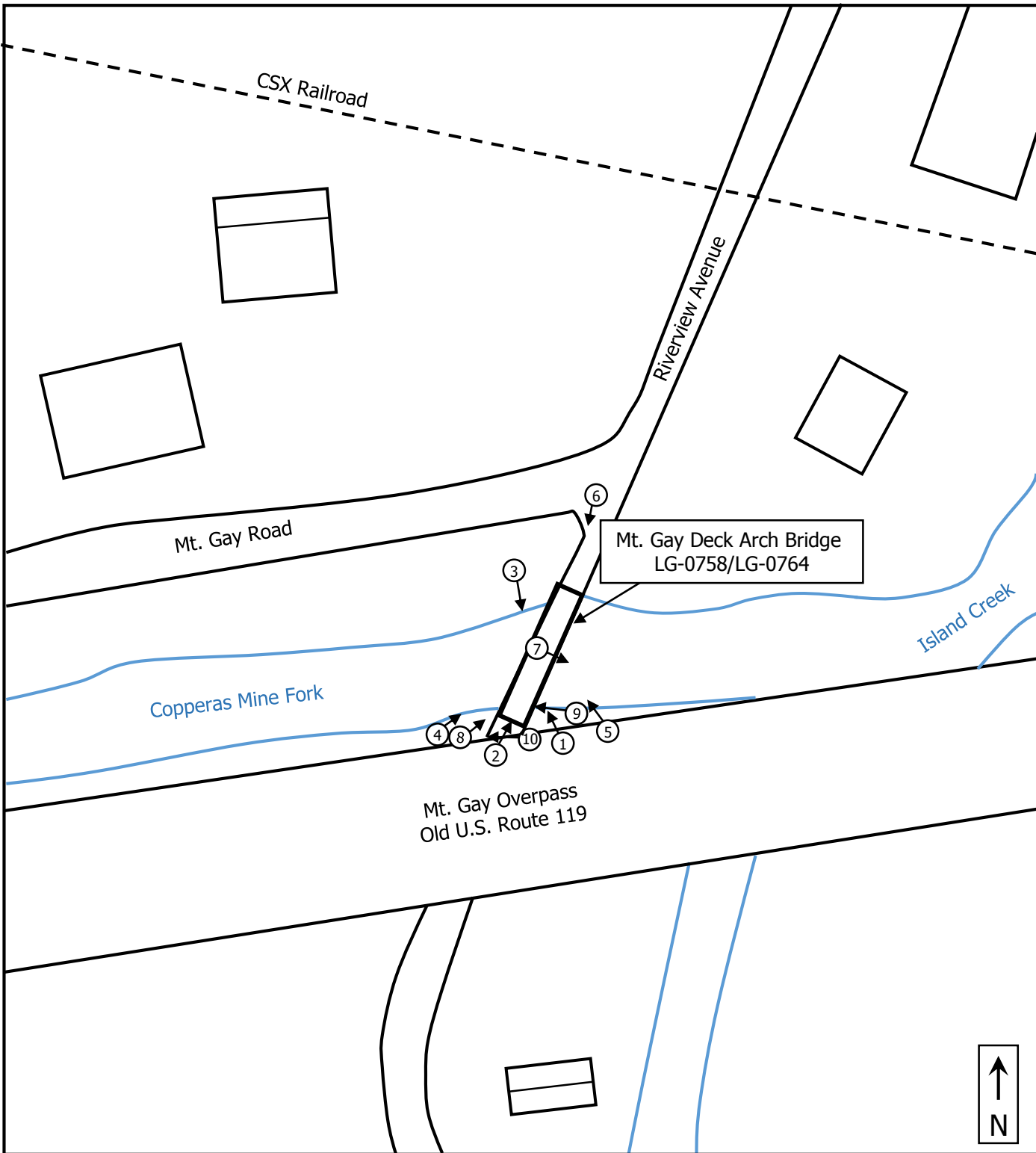
Form Prepared By: Elizabeth H. Williams **Date:** May 2016

Name/Organization: GAI Consultants

Address: 385 East Waterfront Drive
Homestead, PA 15120

Phone #: 412.399.5060





LEGEND



Photo Location

SITE PLAN

MT. GAY DECK ARCH BRIDGE (LG-0758/LG-0764)
MOUNT GAY, LOGAN COUNTY



gai consultants

MT. GAY/NORTH WHITES ADDITION BRIDGE
REPLACEMENT PROJECT

DRAWN: EHW
CHECKED: TDB

DATE: 05/25/2016
APPROVED: JG

STATE LEVEL HISTORIC DOCUMENTATION

INDEX TO PHOTOGRAPHS

Mt. Gay Deck Arch Bridge (LG-0758/LG-0764)

Logan County, West Virginia

State Project #S323-119/26-0.42

Federal Project #STP-1192(050)D

Bridge Number: 23—119/26—000.42

Federal Bridge Number: 0000000023A151

Photographer: Elizabeth Williams, May 2016

- Photograph 1 Mt. Gay Deck Arch Bridge, LG-0758/LG-0764, Facing Northwest
- Photograph 2. Mt. Gay Deck Arch Bridge, LG-0758/LG-0764, Facing North
- Photograph 3. Mt. Gay Deck Arch Bridge, LG-0758/LG-0764, Facing Southeast
- Photograph 4. Mt. Gay Deck Arch Bridge, LG-0758/LG-0764, Facing Northeast
- Photograph 5. Mt. Gay Deck Arch Bridge, LG-0758/LG-0764, Former Sidewalk Facing Northwest
- Photograph 6. Mt. Gay Deck Arch Bridge, LG-0758/LG-0764, Facing South
- Photograph 7. Mt. Gay Deck Arch Bridge, LG-0758/LG-0764, Facing East
- Photograph 8. Mt. Gay Deck Arch Bridge, LG-0758/LG-0764, Spandrel Wall and Pier, Facing Northeast
- Photograph 9. Mt. Gay Deck Arch Bridge, LG-0758/LG-0764, Sidewalk Support and Hook Facing West
- Photograph 10. Mt. Gay Deck Arch Bridge, LG-0758/LG-0764, Mile Marker Facing West

No original plans exist for this bridge.



Photograph 1. Mt. Gay Deck Arch Bridge, LG-0758/LG-0764, Facing Northwest



Photograph 2. Mt. Gay Deck Arch Bridge, LG-0758/LG-0764, Facing North



Photograph 3. Mt. Gay Deck Arch Bridge, LG-0758/LG-0764, Facing Southeast



Photograph 4. Mt. Gay Deck Arch Bridge, LG-0758/LG-0764, Facing Northeast



Photograph 5. Mt. Gay Deck Arch Bridge, LG-0758/LG-0764, Former Sidewalk Facing Northwest



Photograph 6. Mt. Gay Deck Arch Bridge, LG-0758/LG-0764, Facing South



Photograph 7. Mt. Gay Deck Arch Bridge, LG-0758/LG-0764, Facing East



Photograph 8. Mt. Gay Deck Arch Bridge, LG-0758/OG-0764, View Spandrel Wall and Pier, Facing Northeast



Photograph 9. Mt. Gay Deck Arch Bridge, LG-0758/LG-0764, Sidewalk Support and Hook Facing West



Photograph 10. Mt. Gay Deck Arch Bridge, LG-0758/LG-0764, Mile Marker Facing West