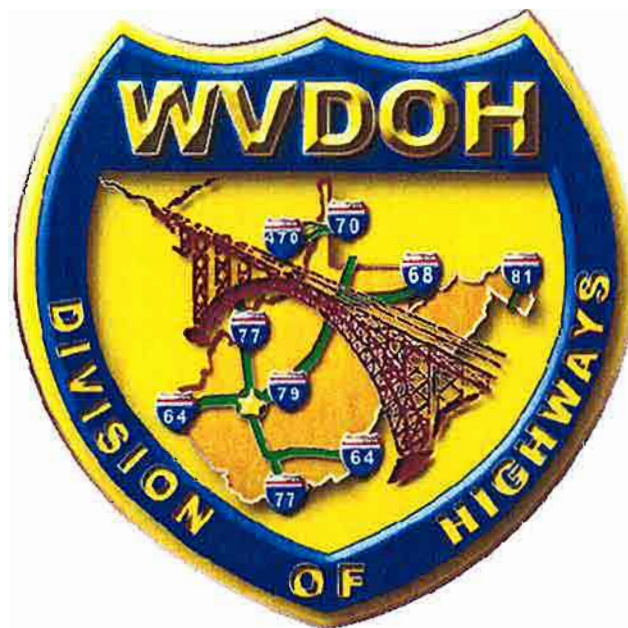


Informational Workshop Public Meeting

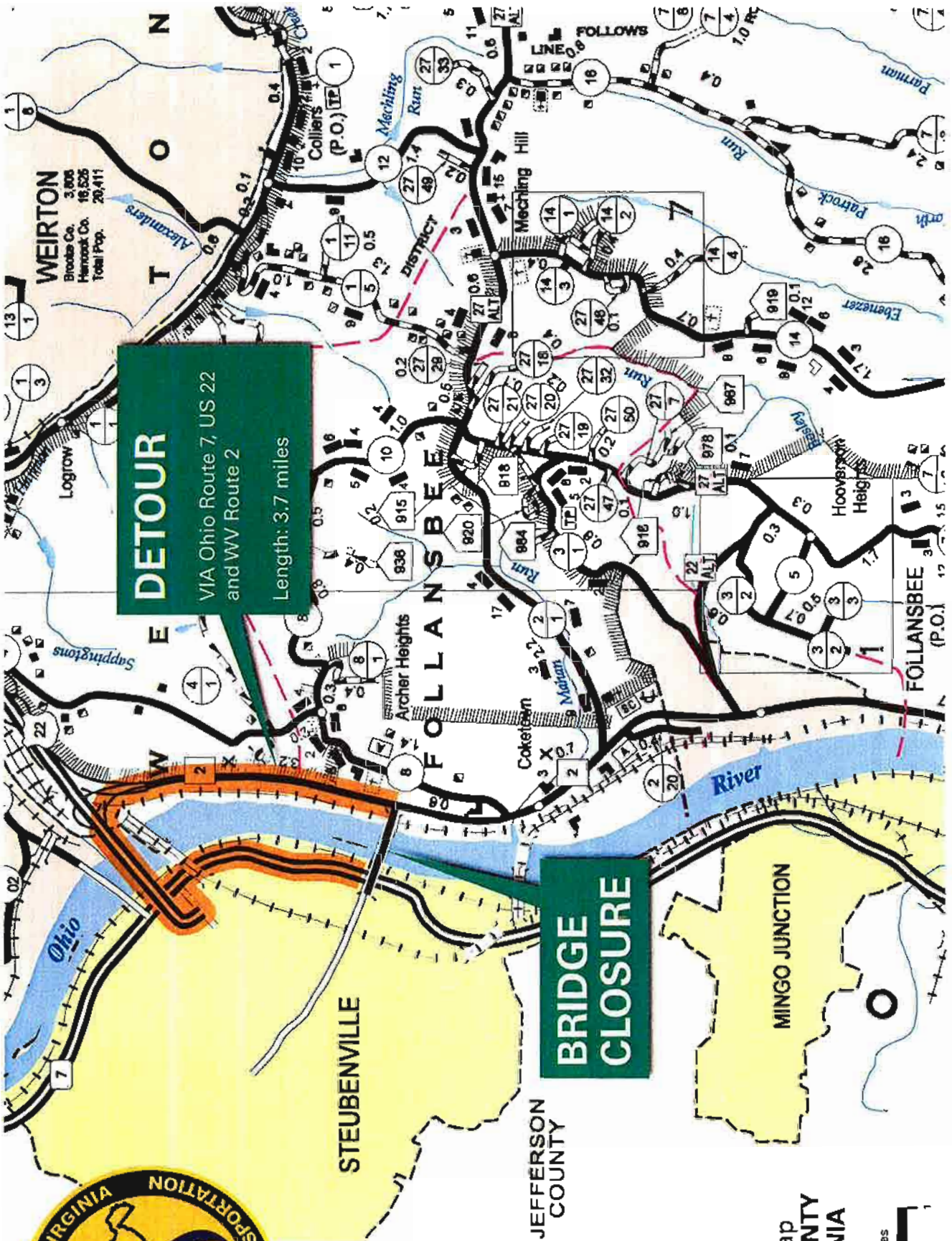
Market Street Bridge

Bridge No. 05-2-SPUR-0.00



**WV Department of Transportation
Division of Highways**

**Follansbee Community House
Follansbee Municipal Park
Brooke County
July 23, 2009**

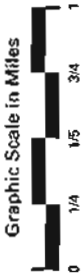


DETOUR
 VIA Ohio Route 7, US 22
 and WV Route 2
 Length: 3.7 miles

**BRIDGE
 CLOSURE**



Regional Map
BROOKE COUNTY
WEST VIRGINIA



***HISTORIC MARKET STREET BRIDGE
BRIDGE NO. 05-2-SPUR-0.00***



Narrative Description

The Market Street Bridge is a steel suspension bridge with an overall length of 1794' and a roadway width of approximately 22'. The structure consists of three main spans across the Ohio River that are cable-suspended with a stiffening through Warren truss. The west approach consists of two deck girder spans and a five-span steel through truss which is a quadrangular Warren with verticals. The cables are suspended from two steel towers that rise approximately 210' from cut stone piers. The substructure consists of cut stone piers, concrete stub abutments, and both concrete and steel bents. The structure has a 5'-4" sidewalk on the downstream side that is accessed via steel stairs on the Ohio side. Handrailings are basic fence-like steel elements. Connections are primarily riveted. The bridge has minimal decorative or architectural elements.

Statement of Significance

The Market Street Bridge was completed in 1905 as a project of the Steubenville Bridge Company, an organization that appears to have been formed solely for the purpose of constructing the bridge. The structure was originally built to carry streetcar and pedestrian traffic over the Ohio River between the town of Steubenville and the towns along the river in West Virginia, including Follansbee and Wellsburg. A newspaper article regarding the bridge opening expressed the hope that the bridge would "stimulate the city in a business way" by bringing customers from across the river. The Ohio

Historic Inventory bridge inventory form notes that Steubenville businessman Dohrman Sinclair made a deal with the Follansbee brothers of West Virginia that if Sinclair built the bridge, the Follansbees would build a tin mill directly across the river. Thus, Sinclair's Tri-State Traction Company streetcars would provide transportation for mill workers in a mutually beneficial arrangement.

E.K. Morse was the designer of the Market Street Bridge. Morse worked on the Hawkesbury River railroad bridge in Australia in 1887 and returned to the United States in 1889 to work as a consulting engineer in Pittsburgh. He was employed by Jones and Laughlin Steel Corporation, Carnegie Steel Corporation and city and county governments, among others. In 1907, after a series of devastating floods, Morse was asked to head the Pittsburgh Flood Commission, and made it his life's work to improve the city's defenses against flooding. He continued to work on this goal and others until his death in 1942.

The contractor for the bridge was the Ohio Steel Erection Company. Little information was available regarding this company's history and work. The Penn Bridge Company has also been credited as a builder of the bridge. The Penn Bridge Company was established in 1868 by T.B. White in Beaver Falls, PA. The company began constructing wooden bridges, but reorganized and expanded into metal in 1878. The company continued to grow and built bridges throughout the United States, remaining independent of the large conglomerate American Bridge Company. The extent of Penn Bridge Company's involvement with the Market Street Bridge is unknown.

The suspension bridge has precedents in the ancient world, but this design type was not used for large civil projects until the 19th century. Engineering design theories regarding suspension bridges were published in Europe and the United States in the late 18th and early 19th centuries. The increasing development of iron and steel manufacturing technology in the early 1900s allowed these theories to be put into practical use. The technology to economically produce metal cables and members fostered the use of the suspension bridge as a way to span great lengths using less material. Charlest Ellet, Jr and John Augustus Roebling studied suspension bridges in Europe and were instrumental in promoting this bridge type in the United States. Ellet designed the Wheeling Suspension Bridge in 1847-1849, which is now recognized as one of the most prominent historic suspension bridges in the country. The suspension bridge provided a solution to crossing the Ohio River and many of this bridge type were built along the Ohio/West Virginia border, including the East Liverpool-Chester Bridge (1897), Newell-East Liverpool Bridge (1905), Belpre-Parkersburg Bridge (1916) and Fort Steuben Bridge (1928), among others.

Although the Market Street Bridge was called "ornamental" in the newspaper upon its opening, the bridge in reality was a utilitarian structure. The bridge was primarily intended to serve streetcar traffic, but automobile and foot traffic was accomodated as well. Various streetcar companies used the bridge over the years, including the Tri-State Traction Company, Wheeling Traction System, West Penn Traction Company and others. By 1922, the bridge was experiencing structural failure due to overloaded freight cars.

Renowned structural engineer David B. Steinman, designer of the Mackinac Bridge, visited to inspect and analyze the bridge and to recommend repairs, which were implemented. By the 1940s, streetcar use had declined significantly due to the ubiquity of the automobile. The West Virginia State Road Commission acquired the bridge for \$1.3 million from the Steubenville Bridge Company in 1942, and converted it to vehicular use, spending \$400,000 and two years on the renovation. Tolls were placed on the bridge with the expectation that the bridge would be paid for in 12 years. Tolls were removed in 1953.

The Market Street Bridge is eligible for the National Register of Historic Places under Criterion A for its role as an important transportation link between Ohio and West Virginia. In the early 20th century, the width of the Ohio River would have been a major impediment to connection between communities on either bank. Construction of this bridge represented the expansion of communication and markets to new places with ease that could not have been conceived in the era of ferrying. Local newspapers looked forward to the economic development promised by this bridge, and by all accounts, the structure was well-used. The Market Street Bridge also uniquely represents an ever-evolving continuum of transportation history in its original use for streetcars, incidental use by pedestrians and finally, acquiescence to the automobile.

Market Street Bridge does not appear to have a significant link to any person of historical importance. The bridge was conceived and financed by local businessmen in Steubenville and Follansbee, but this aspect of its history is more appropriately represented by Criterion A for transportation and economic significance. The Market Street Bridge is not eligible under Criterion B.

Civil engineer E.K. Morse led a long and distinguished career, particularly as a flood control engineer for the city of Pittsburgh. Morse was also involved in the construction of the Hawkesbury River railroad bridge in 1887 (now demolished), which at the time of its construction was the deepest structure in the world and the largest railroad bridge in the Southern Hemisphere. The Market Street Bridge may also be the only remaining bridge with three main spans that are cable-suspended with a stiffening through Warren truss. Thus, the bridge is eligible under Criterion C for its association with master builder E.K. Morse and its engineering design.

This bridge has little potential to yield information regarding history or prehistory. It is not eligible under Criterion D.

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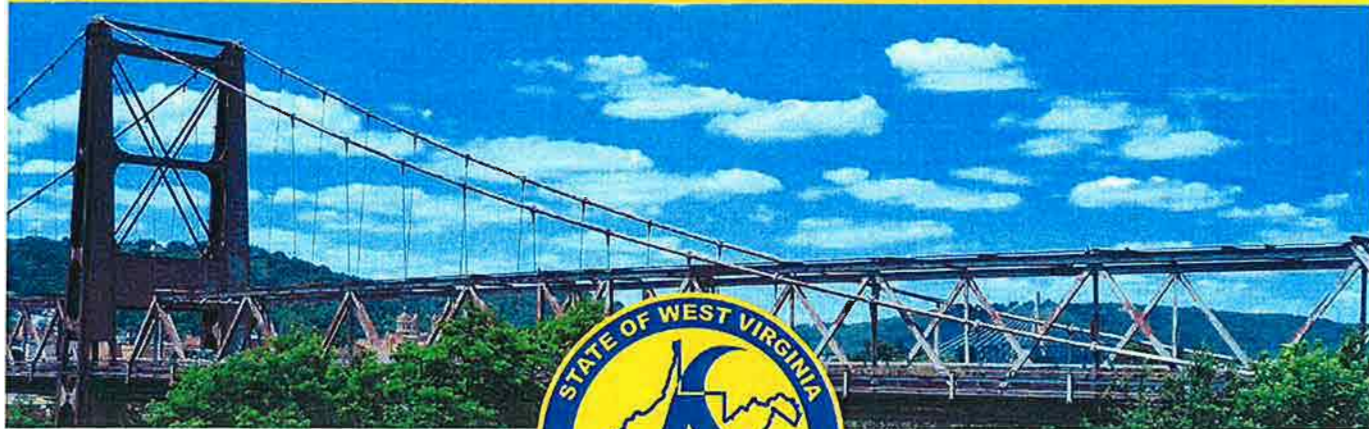
***For Additional Historical Information Contact
Courtney Fint, Structural Historian
West Virginia Division of Highways Environmental Section
304-558-7421***

Project Description

The Market Street Bridge is scheduled for significant renovation work. The first bridge closure will start in January 2010 until November 2010. The second bridge closure will start in March 2011 until October 2011. WVDOT is currently studying color schemes for the painting of the bridge. In addition, period lighting will be installed on the bridge using a lighting scheme similar to that of the Wheeling Suspension Bridge. The bridge will be closed during repairs.

The purpose of this informational workshop public meeting is to afford participants an opportunity to ask questions and state their opinions on the proposed project. Highway personnel will be present to discuss the bridge replacement project and receive public input.

Those wishing to file written comments may send them to Commissioner, West Virginia Division of Highways, Capitol Complex Building Five, 1900 Kanawha Boulevard East, Charleston, WV 25305-0430 on or before August 22, 2009.



Welcome

Informational Workshop

Market Street Bridge

<http://www.wvdot.com/MarketStreetBridge>

Thursday, July 23

4:00 to 7:00 pm

Follansbee Community House



West Virginia
Department of Transportation
Division of Highways



US Department
of Transportation
Federal Highway
Administration



Brooke Hancock Jefferson
Metropolitan Planning Commission

City of Follansbee

City of Weirton

City of Steubenville



Scope of Work

- Structural Repairs to the Towers
- Structural Repairs to the Ohio Approach Spans
- Structural Repairs to the Stiffening Truss
- Repair Suspender Connections to the Lower Chord of the Stiffening Truss
- Replace the Mobile Inspection Platforms
- Clean and Paint All Structural Steel
- Coat the Sidewalk with a Slip Resistant Coating
- Pressure Wash the Cut Stone Tower Piers
- Install Accent Lighting Similar to that of the Wheeling Suspension Bridge
- Renovate the Navigational Lighting
- Lower the Current Height Restricting Structure from 11'-0" to 10'-0"
- Install Weigh-in-Motion Device to Monitor Vehicle Weights

Purpose of Work

- To Maintain the Current 5-Ton Posting for the Next Ten Years.

Bridge Closure

- The weight limit alone requires the bridge to be closed during construction activities.

Anticipated Closure Schedule

First Closure: January 2010 - November 2010

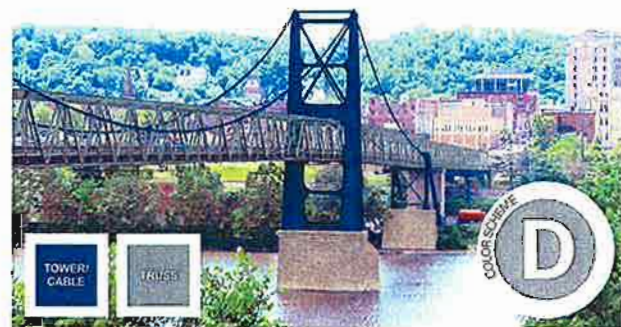
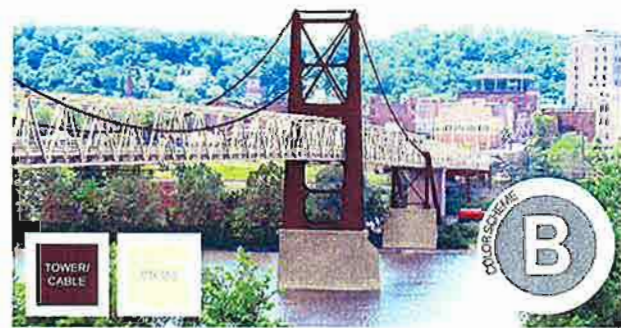
Second Closure: March 2011 - October 2011

Temporary Detour

A detour will be posted to cross the Ohio River via the Veterans Memorial Bridge (US22) at Weirton, a total distance of about 3.7 miles. The detour route will follow WV Route 2, US22, and OH Route 7.



Existing View



Participate in the online poll at:
<http://www.wvdot.com/MarketStreetBridge>



West Virginia
Department of Transportation
Division of Highways



U.S. Department of Transportation
Federal Highway Administration

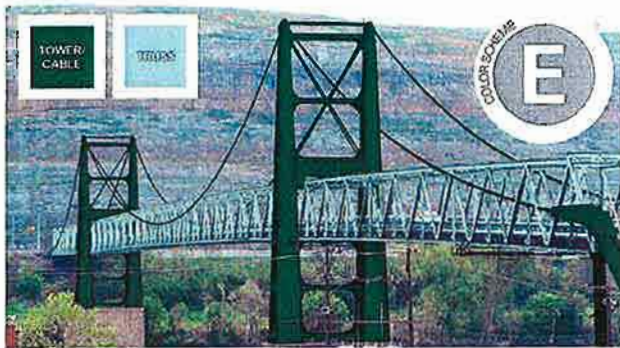


Brookh Hancock Jefferson
Metropolitan Planning Commission

City of Follansbee

City of Weirton

City of Steubenville



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West Virginia
Department of Transportation
Division of Highways



U.S. Department of Transportation
Federal Highway Administration



Brooke Hancock Jefferson
Metropolitan Planning Commission

City of Follinsbee

City of Weirton

City of Steubenville



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West Virginia
Department of Transportation
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City of Follansbee

City of Weirton

City of Steubenville

PLACE
STAMP
HERE

Commissioner
West Virginia Division of Highways
State Capitol Complex, Building 5
1900 Kanawha Boulevard East
Charleston, West Virginia 25305-0430

FOLD and TAPE