

Maryland Historical Trust

Maryland Inventory of Historic Properties number: WA-11-1122

Name: JAMES RAMSEY BRIDGE OVER POTOMAC RIVER

The bridge referenced herein was inventoried by the Maryland State Highway Administration as part of the Historic Bridge Inventory, and SHA provided the Trust with eligibility determinations in February 2001. The Trust accepted the Historic Bridge Inventory on April 3, 2001. The bridge received the following determination of eligibility.

MARYLAND HISTORICAL TRUST	
Eligibility Recommended <u> X </u>	Eligibility Not Recommended <u> </u>
Criteria: <u> </u> A <u> </u> B <u> X </u> C <u> </u> D	Considerations: <u> </u> A <u> </u> B <u> </u> C <u> </u> D <u> </u> E <u> </u> F <u> </u> G <u> </u> None
Comments: _____ _____	
Reviewer, OPS: <u> Anne E. Bruder </u>	Date: <u> 3 April 2001 </u>
Reviewer, NR Program: <u> Peter E. Kurtze </u>	Date: <u> 3 April 2001 </u>

James

MARYLAND INVENTORY OF HISTORIC BRIDGES
HISTORIC BRIDGE INVENTORY
MARYLAND STATE HIGHWAY ADMINISTRATION/
MARYLAND HISTORICAL TRUST

MHT No. WA-II-1122

SHA Bridge No. 21002

Bridge name James Rumsey Bridge over Potomac River

LOCATION:

Street/Road name and number [facility carried] MD 34 and WV 480 (Shepherdstown Pike)

City/town Sharpsburg, MD; Shepherdstown, WV

Vicinity X

County Washington Co., MD; Jefferson Co., WV

This bridge projects over: Road Railway Water Land

Ownership: State County Municipal Other Joint ownership with W. Virginia

HISTORIC STATUS:

Is the bridge located within a designated historic district? Yes No

National Register-listed district National Register-determined-eligible district

Locally-designated district Other

Name of district Chesapeake and Ohio Canal National Historical Park

BRIDGE TYPE:

Timber Bridge :

Beam Bridge Truss -Covered Trestle Timber-And-Concrete

Stone Arch Bridge

Metal Truss Bridge

Movable Bridge :

Swing Bascule Single Leaf Bascule Multiple Leaf

Vertical Lift Retractable Pontoon

Metal Girder :

Rolled Girder Rolled Girder Concrete Encased

Plate Girder Plate Girder Concrete Encased

Metal Suspension

Metal Arch

Metal Cantilever

Concrete :

Concrete Arch Concrete Slab Concrete Beam Rigid Frame

Other Type Name

DESCRIPTION:

Setting: Urban _____ Small town X Rural _____

Describe Setting:

Bridge 21002 carries Maryland Route 34 and West Virginia Route 480 over the Potomac River in the vicinity of Sharpsburg, Maryland, and Shepherdstown, West Virginia. The bridge is partially located within the corporate boundaries of Sheperdstown, West Virginia. Maryland and West Virginia have joint ownership of the bridge, with West Virginia performing bridge inspections. The bridge is referred to as the James Rumsey Bridge in the inspection reports. MD 34/WV 480 runs generally in an east-west direction in the area while the Potomac River flows north-south. The bridge is situated in a rural area of small towns and moderate development, on the bluffs high above the Potomac River. There are woods and a large inn/restaurant near the bridge.

Describe Superstructure and Substructure:

Bridge 21002, constructed between 1937-1939, is a six-span, metal cantilever deck Wichert truss measuring 312.57 meters (1025.5 feet) in total length. Spans two through five are identical and consist of twenty-one panels, each bearing on concrete piers. Spans one and six are similar to the other spans, but bear on concrete abutments. The top and bottom chords consist of steel beams connected by rivets. The floor system has steel stringers and floorbeams. All verticals and diagonals are steel beams. The bridge contains riveted connections, with pinned hinge connections at the abutments and pier bearings. The width of the roadway is 7.3 meters (24 feet) There are two 1.2 meter (4 foot) sidewalks on the bridge, and a decorative metal railing with concrete posts. The bridge, which is aligned 90° to the streambed, is not posted and has a sufficiency rating of 31.2. The abutments are concrete with u-shaped concrete wing walls, and there are six concrete piers. There are no plaques on the bridge; however, there is a West Virginia State Historical marker adjacent to the bridge commemorating James Rumsey, for whom the bridge is named. Rumsey demonstrated a steamboat on the river at Shepherdstown in 1787.

Discuss Major Alterations:

There have been no major alterations to the bridge. The inspection report from 1997 details the overall poor condition of the structure. The concrete deck has been repaired numerous times and has many lateral fractures, moisture, and large deposits of efflorescence throughout all spans. There is heavy corrosion on many of the truss members. Various welds and plates have broken, and the concrete sidewalk is badly spalled and scaled. The State of West Virginia has allocated funds for a major renovation of the bridge.

HISTORY:

WHEN was the bridge built 1937-1939

This date is: Actual X Estimated _____

Source of date: Plaque _____ Design plans _____ State bridge files/inspection form X

Other (specify): _____

WHY was the bridge built?

The bridge was constructed after a 1936 flood destroyed an earlier bridge across the Potomac River.

WHO was the designer?

State Roads Commission

WHO was the builder?

State Roads Commission

WHY was the bridge altered?

N/A

Was this bridge built as part of an organized bridge-building campaign?

There is no evidence that the bridge was built as part of an organized bridge building campaign.

SURVEYOR/HISTORIAN ANALYSIS:**This bridge may have National Register significance for its association with:**

A - Events _____ B- Person _____
C- Engineering/architectural character X

The James Rumsey Bridge is eligible for the National Register of Historic Places under Criterion C, as a significant example of a metal truss bridge. The structure has a high degree of integrity and retains such character-defining elements of the type as the original truss members, connections, abutments, wing walls, piers, and decorative metal railing. In addition, the bridge is one of the earliest Wichert truss bridges in Maryland. The James Rumsey Bridge crosses the boundaries of the Chesapeake and Ohio Canal National Historical Park. The bridge does not contribute to the significance of the C & O Canal NHP, as it is a structure not specifically related to the canal and dates after the canal's period of significance, 1828 to 1924.

Was the bridge constructed in response to significant events in Maryland or local history?

This bridge was one of a large number of metal truss bridges built in Maryland in the late nineteenth and early twentieth centuries. Metal trusses built in the late nineteenth century were frequently of wrought iron construction and featured pinned connections. By the turn of the century, steel was the material of choice and connections were sometimes pinned and sometimes rivetted. By 1920, the truss type exhibited more heavily configured members and rivetted connections.

General Truss Bridge Trends

The first metal truss bridges in the United States were built to carry rail and canal traffic. A rapidly expanding railroad network, with needs for long spans, heavy load capacity and rapid construction, served as the impetus for advances in metal truss technology from the mid-nineteenth century to its close. The earliest metal truss forms of the United States were patented and introduced between 1830 and the Civil War, including the popular Pratt (1844) and Warren (1848) types.

From the Civil War through the end of the century metal truss technology improved in response to increasing loads and speeds, and new transportation needs; steel began to replace iron; numerous "bridge works" and "iron works" were established in the eastern U.S. for fabricating and shipping the truss components to the bridge site; and expanding road networks required a low cost, expedient bridge type.

General Trends in Maryland

In Maryland, the earliest metal truss bridges carried rail lines, including the Baltimore & Ohio (B&O) and the Baltimore and Susquehanna Railroads. As early as 1849, B&O Chief Engineer Benjamin H. Latrobe recommended the construction of metal truss bridges for "large crossings"; in 1850 he reported "much satisfaction" with the future of iron bridges after constructing the metal truss bridge at Savage.

Numerous metal truss bridges were manufactured in Baltimore, the early industrial hub of bridge building activity in the state, from the 1850s through the 1880s. Among the early bridge builders in the 1850s and 1860s were former B&O employees, B.H. Latrobe and Wendell Bollman, founders of competing Baltimore bridge building companies. Historical research identified more than twenty-five bridge companies in the region that built truss bridges in Maryland between 1850 and 1920. Among these were the Wrought Iron Bridge Company, King Iron Bridge Company, Patapsco Bridge and Iron Works, Baltimore Bridge Company, Pittsburg Bridge Company, Penn Bridge Company, Smith Bridge Company, Groton Bridge and Manufacturing Company, Roanoke Iron and Bridge Company, York Bridge Company, Vincennes Bridge Company, Bethlehem Steel Company, American Bridge Company.

The location of the Baltimore & Ohio Railroad, Baltimore bridge fabricators, and the urban needs of the city and its environs resulted in the erection of numerous early truss bridges in Baltimore and the surrounding area. Initially constructed for the railroads, their use quickly came to replace the earlier timber bridges on Baltimore roads.

From Baltimore, the use of the metal truss spread to other parts of the state, with County Commissioners in the Piedmont and Appalachian Plateau counties erecting numerous metal trusses from the 1870s to the early twentieth century. Numerous truss spans were erected during that time. Records indicate that in the early twentieth century the York Bridge Company built a number of metal trusses in the state, primarily Pratt but also Warren and Parker trusses.

The James Rumsey Bridge is a Wichert truss. The Wichert truss is a significant type of continuous truss. Continuous trusses have a chord and web configuration that continues uninterrupted over one or more intermediate supports, compared with simply supported trusses which are supported only at each end. Due to concerns over potential stresses caused by intermediate pier settlement, continuous trusses were not generally employed until the early twentieth century. In 1930, E.M. Wichert of Pittsburgh addressed the problem with his Wichert truss, a continuous truss in which hinged quadrilateral sections were included over the intermediate piers. Wichert's first major truss bridge constructed to this design was the 1937 Homestead High Level Bridge over the Monongahela River at Pittsburgh.

When the bridge was built and/or given a major alteration, did it have a significant impact on the growth and development of the area?

There is no evidence that the construction of this bridge had a significant impact on the growth and development of this area.

Is the bridge located in an area which may be eligible for historic designation and would the bridge add to or detract from the historic/visual character of the potential district?

The bridge crosses the boundaries of the Chesapeake and Ohio Canal National Historical Park. The bridge does not contribute to the significance of the C & O Canal NHP, as it is a structure not specifically related to the canal and dates after the canal's period of significance.

Is the bridge a significant example of its type?

The bridge is a potentially significant example of a truss bridge, possessing a high degree of integrity.

Does the bridge retain integrity of important elements described in Context Addendum?

The bridge retains the character-defining elements of its type, as defined by the Statewide Historic Bridge Context, including the original truss members, connections, abutments, wing walls, piers, and decorative metal railing.

Is the bridge a significant example of the work of a manufacturer, designer, and/or engineer?

This bridge is a significant example of the work of the State Roads Commission in the 1930s.

Should the bridge be given further study before an evaluation of its significance is made?

No further study of this bridge is required to evaluate its significance.

BIBLIOGRAPHY:

County inspection/bridge files SHA inspection/bridge files
Other (list):

P.A.C. Spero & Company and Louis Berger & Associates, *Historic Highway Bridges in Maryland: Historic Context Report*. Prepared for the Maryland State Highway Administration.

SURVEYOR:

Date bridge recorded July 1997

Name of surveyor Caroline Hall/Ryan McKay

Organization/Address P.A.C. Spero & Co., 40 W. Chesapeake Avenue, Suite 412, Baltimore, Maryland 21204

Phone number 410-296-1635

FAX number 410-296-1670

Maryland Historic Highway Bridges

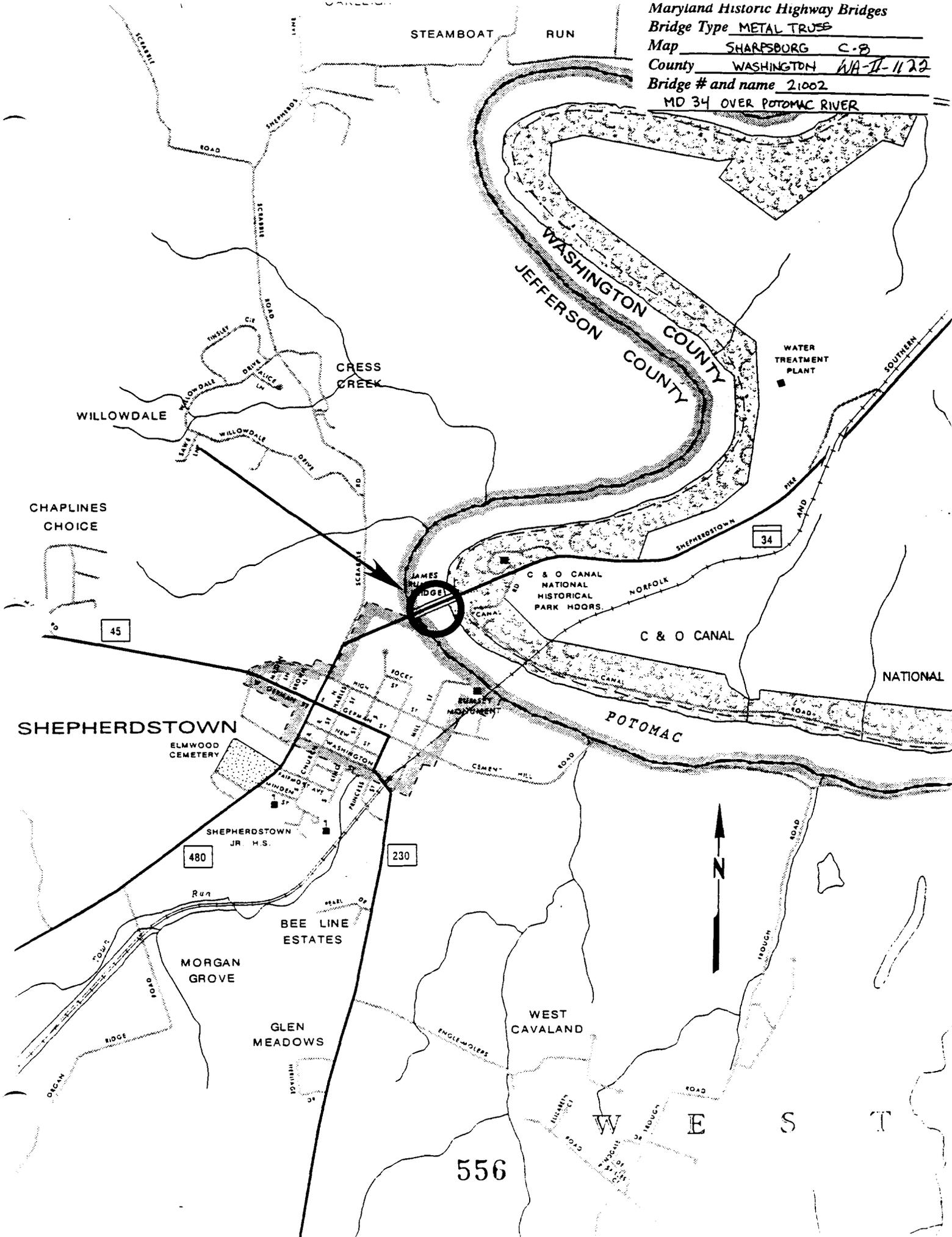
Bridge Type METAL TRUSS

Map SHARPSBURG C-8

County WASHINGTON WA-II-1122

Bridge # and name 21002

MD 34 OVER POTOMAC RIVER





1. WA-1122
2. 21002, MN 34 over Potomac River
3. Washington County, MN
4. Ryan McKoy
5. July 1997
6. MN SHPO
7. west approach
8. 1 of 6



1. WA - II - 1122
2. 21002, MD 34 over Potomac River
3. Washington County, MD
4. Ryan McKenry
5. July 1997
6. MD SHPO
7. Upstream elevation
8. 2 of 6



THE GREAT FLORIDA
BRIDGE
BUILT BY THE STATE OF FLORIDA
UNDER THE SUPERVISION OF
THE PUBLIC WORKS DEPARTMENT
AND THE FLORIDA TURNPIKE
AUTHORITY
OPENED ON SEPTEMBER 2, 1951
DESIGNED AND CONSTRUCTED BY
THE STATE OF FLORIDA

1. WA- II - 1122
2. 21002, MD 34 over Potomac River
3. Washington County, MD
4. Ryan McKenry
5. July 1997
- 4 MD SHPO
- 7 Detail of downstream railing
- 8, 3 of 6



1. WA-4-1122
2. 21002, MD 34 over Potomac River
3. Washington County, MD
4. Ryan McKay
5. July 1997
6. MD 51+P0
7. East approach
8. 4 of 6



1. WA- II-1822
2. 216 02, MD 34 over Potomac River
3. Washington County, MD
4. Ryan McKay
5. July 1997
6. MD SHAD
7. Post of downstream elevation
8. 5 of 6



1. WA - II - 1122
2. 21002, MD 34 over Potomac River
3. Washington County, MD
4. Ryan McKay
5. July 1997
6. MA SHPO
7. Downstream elevation
8. 6 of 6