

Maryland Historical Trust

Maryland Inventory of Historic Properties number: FA-942

Name: VINEGAR HILL ROAD BRIDGE

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>

Handwritten initials/signature

HISTORIC BRIDGE INVENTORY

MARYLAND STATE HIGHWAY ADMINISTRATION/

MARYLAND HISTORICAL TRUST

SHA Bridge No. H-1/B-1

Bridge name Vinegar Hill Road Bridge

LOCATION:

Street/Road name and number [facility carried] Vinegar Hill Road/Franklinville Road

City/town Franklinville

Vicinity x

County Harford/Baltimore

This bridge projects over: Road _____ Railway _____ Water X Land _____

Ownership: State _____ County X Municipal _____ Other _____

HISTORIC STATUS:

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

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

Locally-designated district _____ Other _____

Name of district _____

BRIDGE TYPE:

Timber Bridge _____:

Beam Bridge _____ Truss -Covered _____ Trestle _____ Timber-And-Concrete _____

Stone Arch Bridge _____

Metal Truss Bridge x

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 _____ Rural X

Describe Setting:

Bridge H-1 carries Vinegar Hill Road (Baltimore County)/Franklinville Road (Harford County) over Little Gunpowder Falls approximately 1/2 mile east of the town of Franklinville, at the boundary of Baltimore and Harford counties. Vinegar Hill/Franklinville Road runs generally in a east/west direction in the area while Little Gunpowder flows to the south. The bridge is situated in a wooded valley. The area is relatively undeveloped with no residential buildings around the bridge.

Describe Superstructure and Substructure:

Bridge H-1 is a single lane, single span, wrought iron Pratt through truss measuring 74 feet in total length. It has six panels of 12'-4 1/2", and features inclined endposts. The top chord is a built-up section of two channels with cover plates and stay plates. The bottom chord consists of two rectangular-section eyebars. The floor system has steel stringers and steel wire flange I beam floorbeams. The verticals consist of two channels with lacing on both sides, and diagonals are paired cylindrical eyebars. All connections are pinned. The width of the roadway is 17'-0" between centerline of trusses. There is no sidewalk on the bridge and the truss members are protected by a modern steel guardrail and 8" x 8" timber wheel guards. The bridge has a 90 degree alignment to the streambed. The abutments and wingwalls are stone masonry. There are no plaques on the bridge.

Discuss Major Alterations:

Bridge H-1/B-1 was rehabilitated in 1970, 1976 and 1980. County records are not available with the specifics of this rehabilitation work. By 1989, it is known that isolated counters, and several lower chords had been replaced with A36 steel members, and that one vertical has been repaired. A new bridge railing has also been added.

Records are with Baltimore County.

HISTORY:

WHEN was the bridge built 1884
This date is: Actual x Estimated _____
Source of date: Plaque _____ Design plans _____ County bridge files/inspection form _____
Other (specify): Proceedings of County Commissioners

WHY was the bridge built?

The bridge was built to circumvent a particularly dangerous fording of the Gunpowder Falls. The Baltimore County Union, reported June 21, 1879 “the County Commissioners of Harford expected to meet Judge A.M. Brown and others, representing the Baltimore County Commissioners, on Thursday, at Franklinville, to fix the site of a new bridge to be built by both counties jointly, over the Little Gunpowder Falls, on the road leading from Upper Falls to Magnolia. The fording at this point is always deep and dangerous, and frequently during the winter months it is absolutely impassable. The bridge will be a great convenience to many people of both counties.”

WHO was the designer?

The bridge was designed by the Penn Bridge Company of Beaver Falls, Pennsylvania

WHO was the builder?

The bridge superstructure was built by the Penn Bridge Company of Beaver Falls, Pennsylvania; the bridge substructure was built by J. Howard Mays. Proceedings of County Commissioners, recorded on November 21, 1883 that “J. Howard Mays be and he is hereby awarded the contract for the masonry at Franklinville Bridge at the sum of \$1310.” and “That the Penn Bridge Company of Beaver Falls Pennsylvania be and they are hereby awarded the contract to build an Iron Bridge over Little Falls near Franklinville the dividing line between Baltimore and Harford County’s for the sum of \$1460.”

WHY was the bridge altered?

To maintain load capacity.

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

Bridge H-1 was not 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 X B- Person
- C- Engineering/architectural character x

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

Bridge H-1/B-1 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. During the late nineteenth century Baltimore County and Harford County advertised and built a number of metal truss bridges.

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 that built truss bridges in the state 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.

Harford County

Eight extant metal truss bridges were identified in Harford County as a result of SHA’s 1994-1995 historic bridge survey:

- H-1, single span Pratt through truss built in 1884
- H-54, single span Pratt truss built c. 1889-1897
- H-63, single span Pratt pony truss built c. 1885-1900
- H-58, single span Pratt through truss built in 1886
- H-94, single span Pratt through truss built c. 1885-1900
- H-160, single span Pratt through truss built in 1883
- 12016, single span Pratt truss built in 1934
- 12033, single span Warren pony truss built c. 1930

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?

Historical research indicates that this bridge was a new bridge at its location; thus it would have facilitated travel in this area of Baltimore County.

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 is not located in an area which may be eligible for historic designation.

Is the bridge a significant example of its type?

This bridge is a significant example of a wrought iron Pratt truss.

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

The bridge has lost integrity of a number of its character defining elements, including isolated lower chords, counters and a portion of one vertical. The replaced members have been replaced with steel of compatible section and do not visibly detract from the historic appearance of the truss. Although a number of character-defining elements have been replaced on this truss, the replacement has been sensitive, the bridge retains enough of its integrity to represent its type, which is a rapidly diminishing resource type.

This bridge retains integrity of location, design, setting, feeling and association.

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

Historical research indicates the bridge was designed by the Penn Bridge Company of Beaver Falls; its significance is as one of few remaining examples. Organized in 1868, by T.B. White & Sons in New Brighton, Pennsylvania, the firm was moved to Beaver Falls in 1878. The company was reorganized and incorporated in 1887. Along with wrought iron, steel and combination bridges, the firm also manufactured iron substructures, iron building and roof trusses, plate girders, box girders, lattice girders, and architectural ironwork.

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

Bridge H-1/B-1 is listed in the Maryland Historical Trust's Inventory of historic sites. No further study is recommended.

BIBLIOGRAPHY:

County inspection/bridge files _ SHA inspection/bridge files

Other (list):

County survey files of the Maryland Historical Trust

Baltimore County Historical Society files

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 January 1996

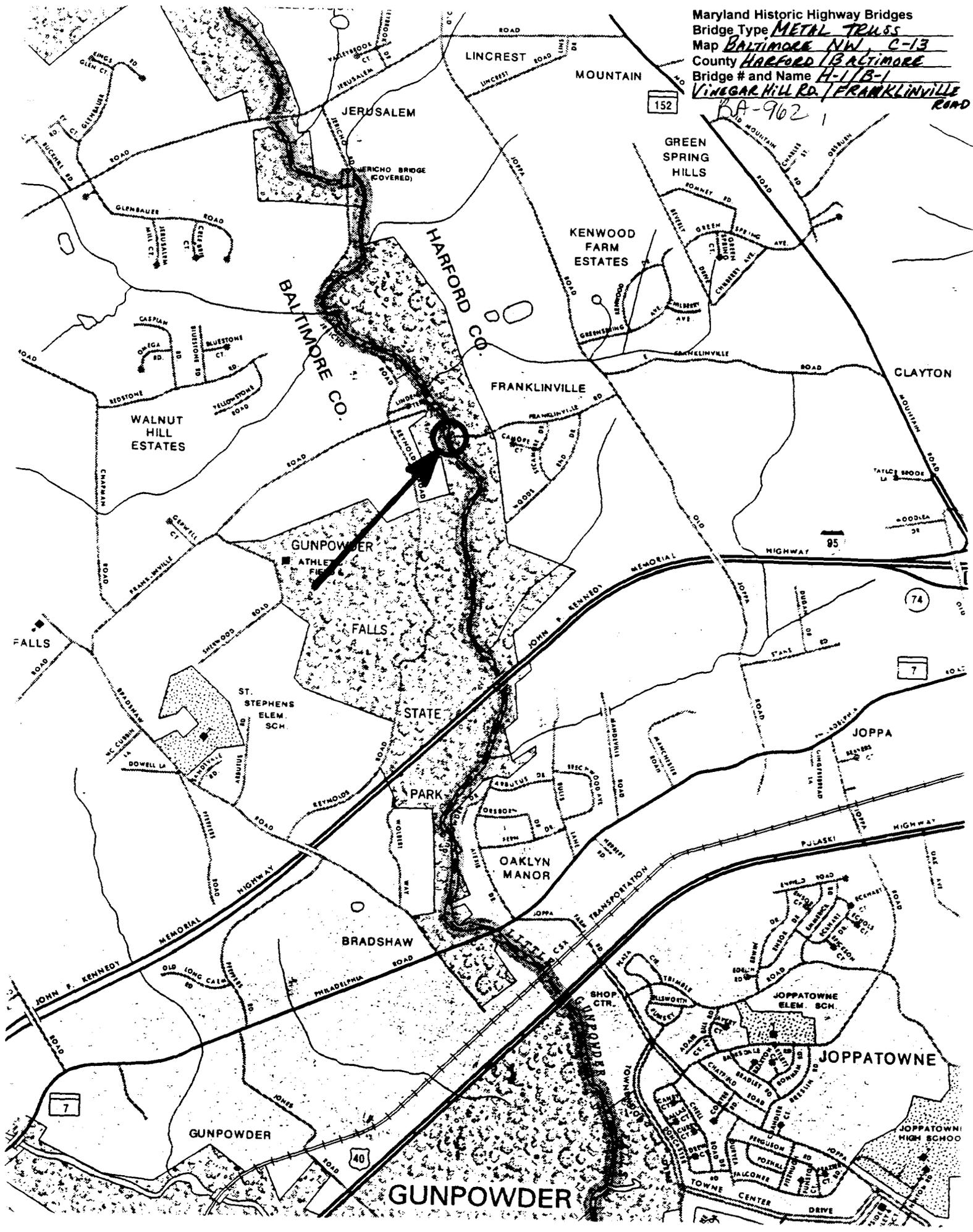
Name of surveyor P.A.C. Spero/C.R. Farr

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 BALTIMORE NW C-13
County HARFORD / BALTIMORE
Bridge # and Name H-11B-1
VINEGAR HILL RD / FRANKLINVILLE ROAD
BA-962





- 1 BA 902
- 2 Franklinville Road Bridge
- 3 Harford County
- 4 Colin Farr
- 5 February 1996
- 6 P.A.C. Spero and Company, Towson MD 21204
- 7 Franklinville Rd. Bridge, north elevation
- 8 1 of 9



- 1 B.A. 962
- 2 Franklinville Road Bridge
- 3 Harford County
- 4 Colin Farr
- 5 February 1996
- 6 P.A.C. Spero and Company, Towson MD 21204
- 7 Franklinville Road Bridge, west approach
- 8 2 of 9



HA.1

EAST PORTAL

2

1 BA-902

2 Franklinville Road Bridge

3 Harford County

+ Colin Farr

5 February 1996

6 P.A.C. Spero and Company, Towson MD 21284

7 Franklinville Road Bridge, east portal

8 3 of 7



- 1 BA-962
- 2 Franklinville Road Bridge
- 3 Harford County
- 4 Colin Farr
- 5 February 1996
- 6 P.A.C. Spero and Company, Towson MD 21204
- 7 Franklinville Road Bridge, west portal
- 8 4 of 9



Vertical

23

1) BA 962

2) Franklinville Rd Bridge

3) Hartford / Balto

4) Colin Farr

5) Feb. 1930

6) P.A.C. Spens & Company, 40 W. Chesapeake Ave #412
TOWSON, MD 21286

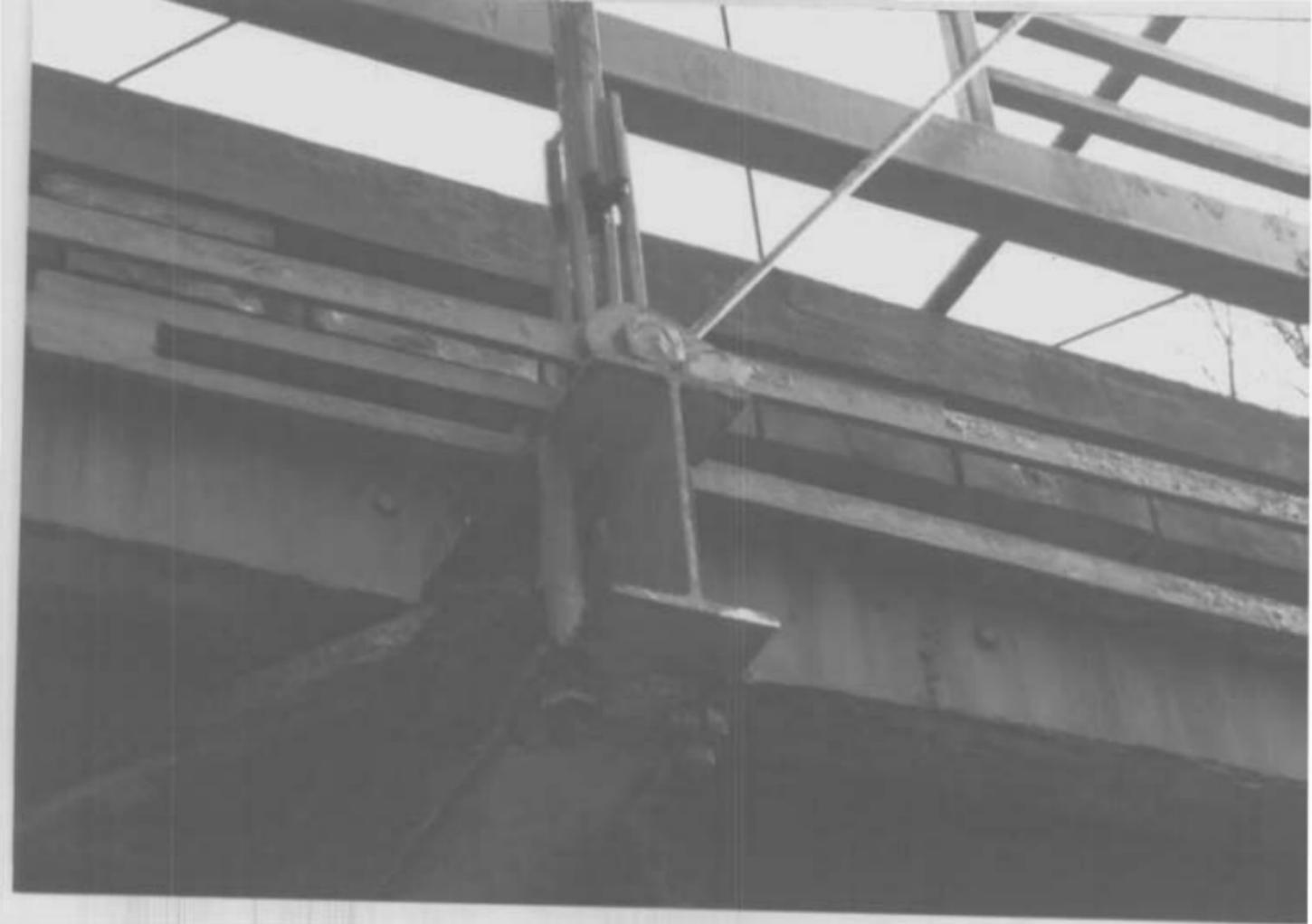
7) Franklinville Rd. Bridge,

8) 5 019

Trust
Members



- 1 B.A.-902
- 2 Franklinville Road Bridge
- 3 Harford County
- 4 Colin Farr
- 5 February 1996
- 6 P.A.C. Speco and Company, Towson MD 21204
- 7 Franklinville Rd. Bridge, Top chord,
- 8 0 of ~~9~~ Verticals + lateral



HA 1

LOWER PIN CONNECTOR

5

1 BA-962

2 Franklinville Road Bridge

3 Harford County

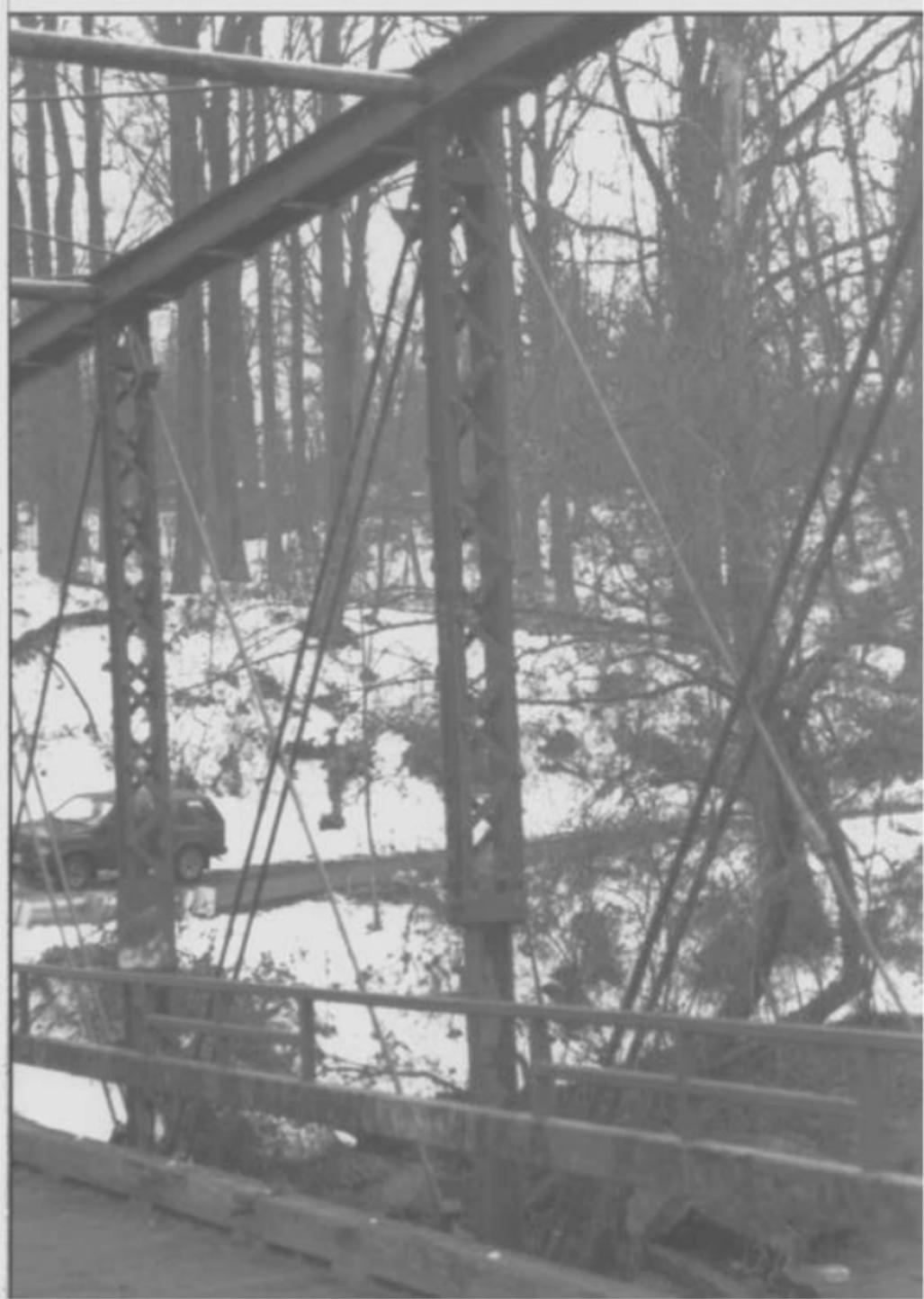
4 Colin Farr

5 February 1996

6 P.A.C. Spero and Company, Towson MD 21284

7 Franklinville Road Bridge, lower pin
connector

8 7 of 9



HI

vertical repair

51

1) BA 962

2) Franklinville Rd. Bridge

3) Harford/Balto.

4) Colin Farr

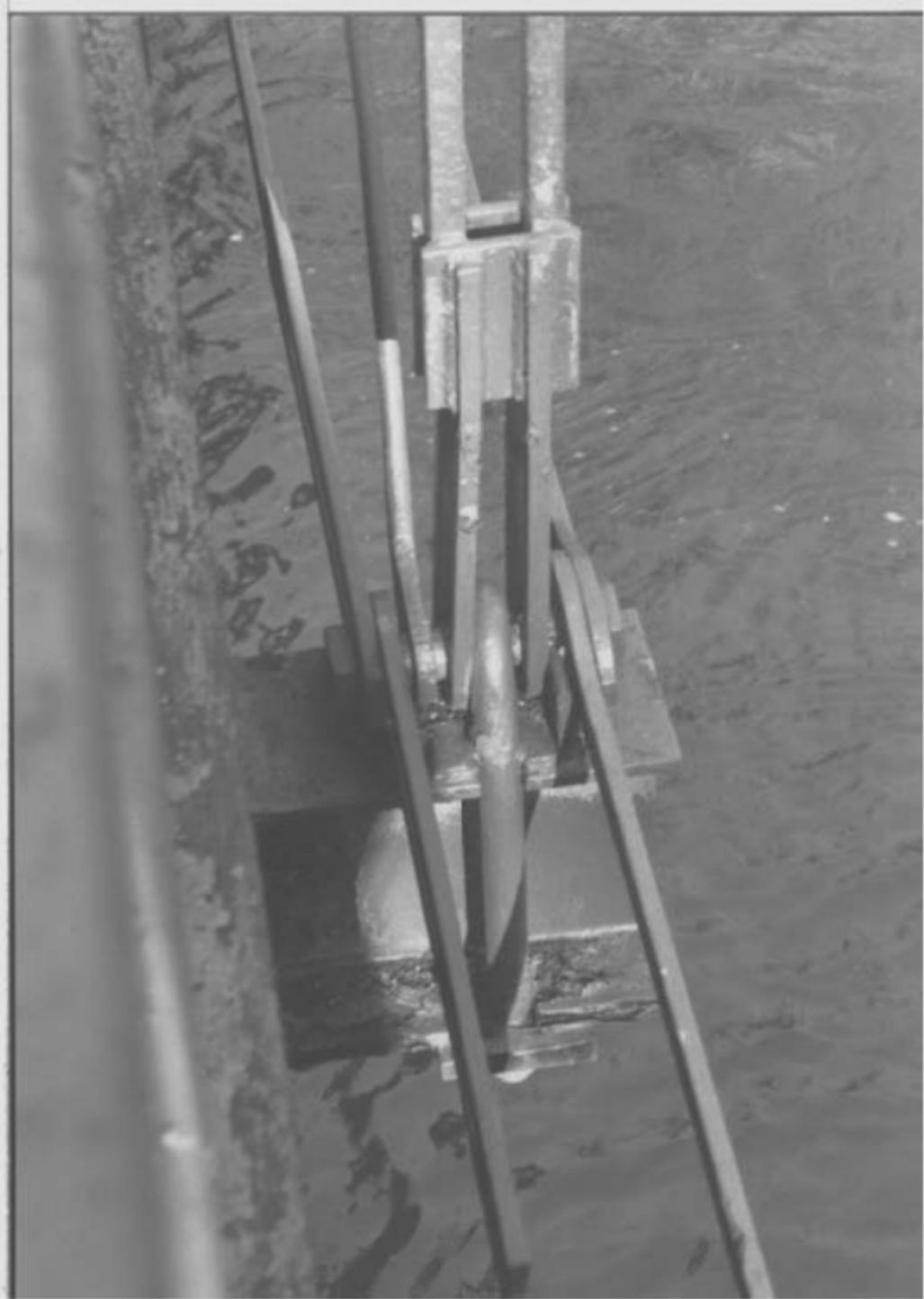
5) Feb. 1996

6) P.A.C. Sperry & Co, 40 W. Chesapeake Ave. #412
TOWSON, MD 21286

7) Franklinville Rd. Br.

8) 8 of 9

Truss member.
Showing verticals



1 BA-962

2 Franklinville Road Bridge

3 Harford County

4 Colin Farr

5 February 1996

6 P.A.C. Spew and Company, Towson MD 21204

7 Franklinville Rd. Bridge, lower pin connector

8 9 of 9

lower chord +
floor beam →

INDIVIDUAL PROPERTY/DISTRICT
MARYLAND HISTORICAL TRUST
INTERNAL NR-ELIGIBILITY REVIEW FORM

Property/District Name: Vinegar Hill Road Bridge (H-1/B-1) Survey Number: BA-962

Project: Rehabilitate Vinegar Hill Road Bridge Agency: FHWA/BA County

Site visit by MHT Staff: no yes Name _____ Date _____

Eligibility recommended Eligibility not recommended

Criteria: A B C D Considerations: A B C D E F G None

Justification for decision: (Use continuation sheet if necessary and attach map)

Based on the available information, the Vinegar Hill Road Bridge, located on Vinegar Hill Road/Franklinville Road over Little Gunpowder Falls, approximately 1/2 mile east of the town of Franklinville, at the boundary of Baltimore and Harford Counties, is eligible for the National Register of Historic Places under Criterion C. The single lane, single span, Pratt through truss was erected in 1884. The bridge is significant as an example of a wrought iron, pinned, Pratt truss. Metal truss bridges were erected in large numbers in Maryland and across the country in the late nineteenth and early twentieth centuries. Baltimore and Harford County both embarked on an extensive program of metal truss bridge construction in the late 19th century. The Vinegar Hill Road Bridge was constructed jointly by the two counties to circumvent a particularly dangerous fording of the Gunpowder Falls. Few of these bridges remain. The Vinegar Hill Road Bridge is one of approximately 50 metal truss bridges remaining in vehicular use in the state. Of these, only about a dozen date to the 1880s or earlier. Metal truss technology improved rapidly from the Civil War through the end of the 19th century. Among the improvements: steel replaced wrought iron. Thus the Vinegar Hill Road Bridge is a significant example of the earlier, wrought iron technology. In addition, the bridge is significant as an example of the work of the Penn Bridge Company of Beaver Falls, Pennsylvania, one of approximately 25 metal truss bridge companies which built bridges in Maryland between 1850 and 1920.

The bridge was rehabilitated in 1970, 1976 and 1980. A number of members have been replaced or modified. In particular, the deck system has been extensively replaced with new materials. However, the replaced members are of similar appearance to the originals and do not detract from the historic appearance of the truss. The bridge still retains sufficient integrity to represent its type, which is a rapidly diminishing resource type

The bridge was inventoried as part of the statewide historic bridge inventory and was determined to be eligible for the National Register by the interagency bridge review committee on March 21, 1996.

Documentation on the property/district is presented in: Maryland Inventory Form BA-962

Project File

Prepared by: C.R. Farr, P.A.C. Spero & Company

Elizabeth Hannold
Reviewer, Office of Preservation Services

March 10, 1997
Date

NR program concurrence: yes no not applicable

Peter S. Spero
Reviewer, NR program

3/17/97
Date

July

MARYLAND COMPREHENSIVE HISTORIC PRESERVATION PLAN DATA - HISTORIC CONTEXT

I. Geographic Region:

- Eastern Shore (all Eastern Shore counties, and Cecil)
- Western Shore (Anne Arundel, Calvert, Charles, Prince George's and St. Mary's)
- Piedmont (Baltimore City, Baltimore, Carroll, Frederick, Harford, Howard, Montgomery)
- Western Maryland (Allegany, Garrett and Washington)

II. Chronological/Developmental Periods:

- Paleo-Indian 10000-7500 B.C.
- Early Archaic 7500-6000 B.C.
- Middle Archaic 6000-4000 B.C.
- Late Archaic 4000-2000 B.C.
- Early Woodland 2000-500 B.C.
- Middle Woodland 500 B.C. - A.D. 900
- Late Woodland/Archaic A.D. 900-1600
- Contact and Settlement A.D. 1570-1750
- Rural Agrarian Intensification A.D. 1680-1815
- Agricultural-Industrial Transition A.D. 1815-1870
- Industrial/Urban Dominance A.D. 1870-1930
- Modern Period A.D. 1930-Present
- Unknown Period (prehistoric historic)

III. Prehistoric Period Themes:

- Subsistence
- Settlement
- Political
- Demographic
- Religion
- Technology
- Environmental Adaption

IV. Historic Period Themes:

- Agriculture
- Architecture, Landscape Architecture, and Community Planning
- Economic (Commercial and Industrial)
- Government/Law
- Military
- Religion
- Social/Educational/Cultural
- Transportation

V. Resource Type:

Category: Structure

Historic Environment: Rural

Historic Function(s) and Use(s): Transportation - Vehicular

Known Design Source: Penn Bridge Co. (truss) & J. Howard Mays (substructure)

VINEGAR HILL BRIDGE

BA 962

Locating a Bridge.--The Belair Aegis of last week says the County Commissioners of Harford expected to meet Judge A. M. Brown and others, representing the Baltimore county Commissioners, on Thursday, at Franklinville, to fix the site of a new bridge to be built by both counties jointly, over the Little Gunpowder Falls, on the road leading from Upper Falls to Magnolia. The fording at this point is always deep and dangerous, and frequently during the winter months it is absolutely impassable. The bridge will be a great convenience to many people of both counties.

--Baltimore County Union, June 21, 1879

Proceedings of County Commissioners, VOL. 6:

f. 98 November 21 1883

Ordered;

That J. Howard Mays be and he is hereby awarded the contract for the masonry at Franklinville Bridge at the sum of \$1310.

Ordered:

That the Penn Bridge Company of Beaver Falls Pennsylvania be and they are hereby awarded the contract to build an Iron Bridge over Little Falls near Franklinville the dividing line between Baltimore and Harford County's for the sum of \$1460.

f. 216 May 27 1884

Ordered:

That the Treasurer pay to B. Howard Mays the sum of \$118.64 Dollars on a/c of Stone Work and materials in Bridge at Franklinville.

Ordered:

That the Treasurer pay to B. Howard Mays the sum of Two Hundred and Forty seven and 93/100 Dollars balance due on Balt. Co.'s 1/2 of Stone Work & material in Bridge at Franklinville.

f. 175 March 19 1884

Ordered

That the Treasurer pay to Henry A. Nagle the sum of Five Dollars for supt. of Bridge at Franklinville to be charged to Harford County.

Report that the bridge was accepted by the Commissioners
Maryland Journal, May 31, 1884

The Franklinville Bridge.--A correspondent of the Belair Times says: "For years we crossed the Little Gunpowder from Harford to Baltimore county near Franklinville on frail pieces of board, which were swept away during heavy rains. Not quite a year ago the Commissioners of the counties to be connected, granted our urgent requests for a bridge, and for this we shall ever be grateful.

"We now have a stupendous foot-bridge spanning the stream. Mr. Mays, the contractor for the abutments, has performed his work in a most satisfactory manner. The bridge is of iron, made and erected by the Penn Bridge Works, Heaver Falls, Pa. How thankful are we that we can walk and have such a structure provided for our use, when we see the weary horses struggling through the rocks and current in the ford below. Being a foot-bridge, a hand rail to the wing walls might not be a bad suggestion, and the pathway might be smoother; but we should not ask too much, and we duly appreciate our foot-bridge, the most expensive we are assured on the Little Gunpowder."

---Baltimore County Union, August 23, 1884

The Franklinville Bridge.--The Belair Times says: "Commissioner Parlett, of Baltimore county, was in Belair a few days ago, to consult our Commissioners about the filling in at the Franklinville bridge, but the board was not in session and Mr. Parlett accomplished nothing by his trip. Nearly all the filling in is to be done on the Harford side and our authorities claim that under the agreement the expense of this should be borne by the two counties in equal parts, as it is a part of the work necessary to the completion of the bridge."

--Baltimore County Union, September 6, 1884





QA-962



13.11

HEIGHT
LIMIT
7
TONS

BA-962



BA-962



BA-962





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