

Maryland Historical Trust

Maryland Inventory of Historic Properties number: BA-961

Name: BETHUN RIVER LITTLE GUNNERS WOODS 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*

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

MHT No. BA 961

SHA Bridge No. H-58/B-6

Bridge name Bottom Road over Little Gunpowder Falls

**LOCATION:**

Street/Road name and number [facility carried] \_\_\_\_\_

City/town Fallston

Vicinity x

County Harford

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 \_\_\_\_\_

Other \_\_\_\_\_ Type Name \_\_\_\_\_

**DESCRIPTION:**

Setting: Urban \_\_\_\_\_ Small town \_\_\_\_\_ Rural X

**Describe Setting:**

Bridge H-58/B-6 carries Bottom Road over Little Gunpowder Falls approximately 1-1/2 mile west of the town of Fallston, at the boundary of Baltimore and Harford counties. Bottom Road runs generally in a northeast/southwest direction in the area while Little Gunpowder Falls flows to the south. The bridge is situated inside Gunpowder Falls State Park. The area is relatively undeveloped with no residential buildings around the bridge.

**Describe Superstructure and Substructure:**

Bridge H-58/B-6 is a single span, wrought iron Pratt through truss measuring 97 feet in total length. It has 7 panels, and features inclined endposts. The top chord is a built-up section of two channels with a cover plate and spacing bars. The bottom chord is a built-up section of paired rectilinear eyebars. The floor system has wooden stringers and steel wire flange I-beam floorbeams. The verticals consist of two channels with lacing bars, diagonals are paired rectilinear eyebars and counters are cylindrical eyebars. All connections are pinned. The width of the roadway is 16'-0" between centerline of trusses. There is no sidewalk on the bridge and the truss members are protected by a two channel steel guardrail and 8" x 10" timber wheel guards. The bridge has a 90 degree alignment. The abutments are masonry with flared masonry wingwalls. There are no plaques on the bridge.

**Discuss Major Alterations:**

According to inspection reports, Bridge H-58/B-6 was rehabilitated in 1980. County records are not available with the specifics of this rehabilitation work. By 1989, it is known that isolated diagonals, and verticals had been replaced with A36 steel members. Records are with Baltimore County.

**HISTORY:**

WHEN was the bridge built 1886  
This date is: Actual x Estimated \_\_\_\_\_  
Source of date: Plaque \_\_\_\_\_ Design plans \_\_\_\_\_ County bridge files/inspection form X  
Other (specify): Proceedings of the County Commissioners

**WHY was the bridge built?**

To facilitate local traffic through Baltimore and Harford Counties.

**WHO was the designer?**

The bridge was designed by the Wrought Iron Bridge Company.

**WHO was the builder?**

The bridge superstructure was built by the Wrought Iron Bridge Company of Canton, Ohio; the bridge substructure was built by William A. Wilson. The Journal of the Proceedings of the County Commissioners (Baltimore County) reported in July 1886 that Wrought Iron Bridge Company was to be paid \$855.05 for the Baltimore County portion of the bridge construction. It was reported that William Wilson was paid \$559.50 for the masonry substructure.

**WHY was the bridge altered?**

To maintain load capacity.

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

Bridge H-58 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-58/B-6 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 Trends

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?**

This metal truss bridge would have facilitated travel in this area of Baltimore and Harford counties.

### **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 diagonals and verticals. 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?**

The bridge is a significant example built by the Wrought Iron Bridge Company of Canton, Ohio.

Organized in 1864 by David Hammond and incorporated in 1871, the company was an early and prolific wrought iron bridge builder.

The company published a 'Book of Designs' in 1874, which featured a history of wrought iron bridge building in the U.S. and Europe and a detailed record of the firm's experience. Numerous plans illustrated the variations available.

Like so many of the early bridge builders, the Wrought Iron Bridge Company was eventually bought out by the American Bridge Company. In 1901 the American Bridge Company was purchased by and became a subsidiary of United States Steel, presently known as USX. Purchased by Mr. Brock Rowley, the American Bridge Company was reorganized in early 1987 and presently operates independently with headquarters in Pittsburgh, Pennsylvania.

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

Bridge H-58 is listed in the Maryland Historical Trust's Inventory of historic sites. No further study is recommended.

**BIBLIOGRAPHY:**

**County inspection/bridge files** X      **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** February 1996

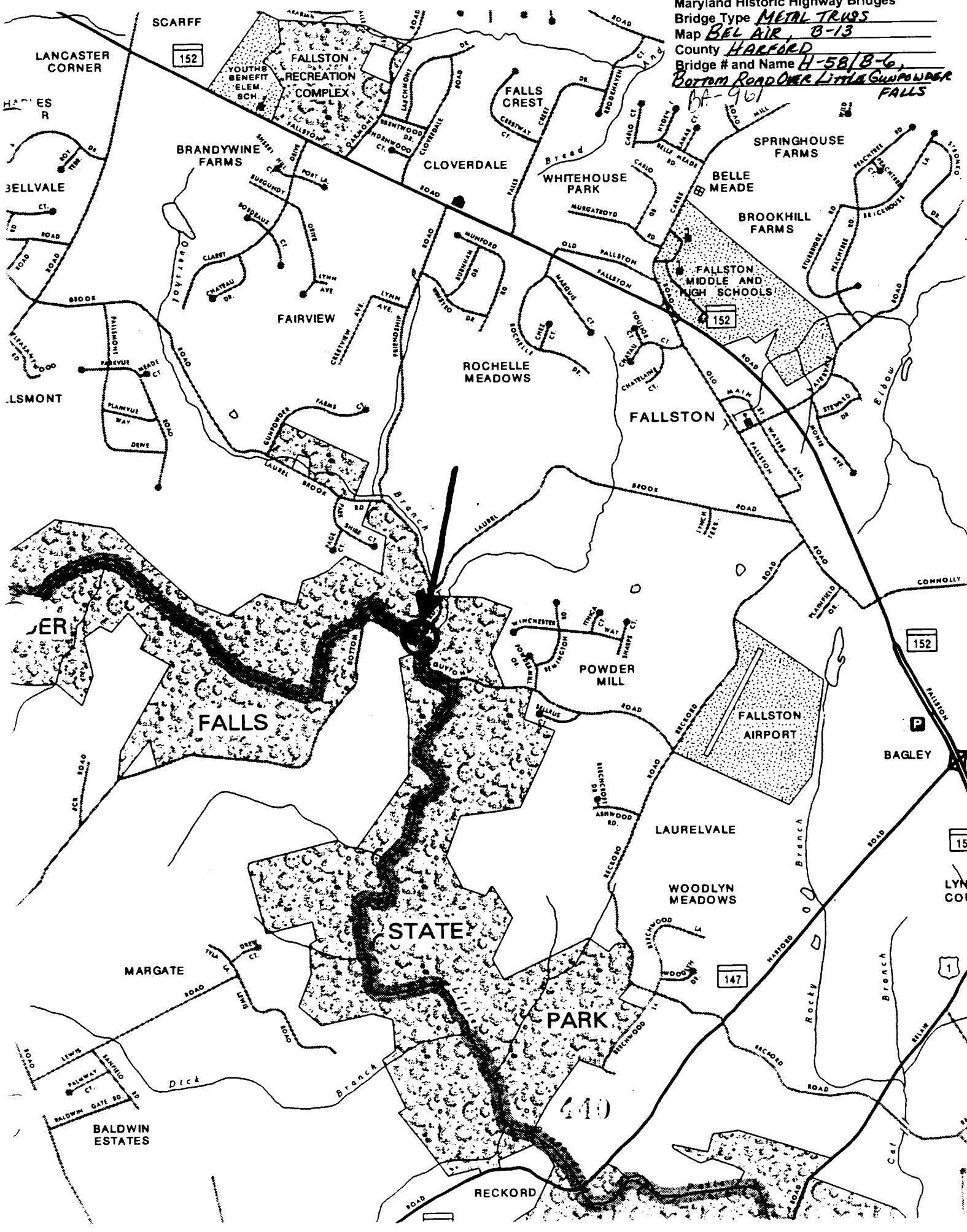
**Name of surveyor** Paula Spero/Colin Farr

**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 BEL AIR, B-13  
County HARFORD  
Bridge # and Name H-5818-6,  
Bottom Road Over Little Gunpowder  
Falls



147

440

152

152

1





HSR

EAST ELEVATION

25

1) BA 961

2) Bottom Rd. over <sup>Little</sup> Grandpounder Falls

3) Harvard

4) Colin Farr

5) Feb 1996

6) P.H.C. Spens+Company, London 1110 2/2 of

7) Bottom Rd. over Little Grandpounder Falls,  
east elevation

8) 1 of 12



- 1) PA 961
- 2) Bottom Rd over Little Gunpowder Falls,
- 3) Hartford
- 4) Colin Fair
- 5) Feb. 1976
- 6) P.A. C. Spring Co, 40 W. Chesapeake Ave #42, Towson 21286
- 7) Bottom Rd over Lt. Gunpowder Falls, North approach
- 8) 2 of 12



1) BA-961

2) Bottom Rd over Little Gunpowder Falls  
 2-10-11

3) 10-11

4) E. 10-11

5) 10-11: Spent 10-11 on 4th Approach for 10-11  
 Transfer, MD 10-11

6) Bottom Rd over 10-11 under Falls, Same approach

7) 3 of 12



H.S.B.

SEVEN YEARS

12

DBA-960

2)4 of 12





1458

NORTH FOLIO

13

DBA-2

8) 5 of 12



- 1) BA-961
- 2) Bottom Rd over Little Gunpowder Falls
- 3) Hartford
- 4) Col'n Farm
- 5) Feb. 1996
- 6) P.A.C. Sperry Co, 40 W. Chesapeake Ave #12, Towson, MD 21284
- 7) Bottom Rd over G. Gunpowder Falls  
TKAS's members
- 8) 6 of 12



1158

~~VERMONT~~

20

20

MEMBERS

- 1) BA 901
- 2) Bottom Rd. Over Little Gunpowder Falls
- 3) Hartford
- 4) Colin Farr
- 5) Feb 1996
- 6) PAC Spend Company, Johnson, MD 21204
- 7) Bottom Rd. over Lt. Gunpowder Falls, cross  
members
- 8) ? of 12



1438

VERTICAL upper chord on pin 17

- 1) BA 961
- 2) Bottom Rd. over Little Gunpowder Falls
- 3) Hartford
- 4) Colma Falls
- 5) Feb. 1996
- 6) P. A. C. Sperry-Co., Towson, MD 21204
- 7) Bottom Rd over Little Gunpowder Falls, Verma  
upper chord + pin
- 8) 8 of 12





1) BA 962

2) Bottom Rd over Little Campwater Falls

3) Hartford

4) Coler Fall

5) Feb 1996

6) P. A. C. Spore & Co., - Wauson, MD 2064

7) Top Home Rd over Little Campwater Falls  
Upper Connections

8) 5 of 12



1) BPA 901

2)

3) Harford

4) Colton Falls

5) Feb 1992

6) PA-C Special Company, Tusson, MD 2204

7) Bottom road over Littlebury Falls,  
under deck

8) 10 of 12



H58

UNDERDECK

71

1 EA 9161

2

3 Harford County

4 Colon Falls

5 Sekwan 14376

6 PAC Specs and Company, Towson MD 21204

7 Potomac Road over Little Bearpounder Falls,  
underdeck

8) 11 of 12



H58

LOWER CONNECTION

22

1 PA 961

2

3 Linn County

4 Colin Farr

5 February 2005

6 PNC Spin and Company, Towns, MS 21204

7 Bottom road over Little Bearpawder Falls,  
lower connection

8) 12 of 12

BA-961

Bottom Road Bridge  
Wrought Iron Bridge Company



Bridge → C

BOTTOM ROAD BRIDGE

G.M. Hopkins' Atlas of Baltimore County, Maryland, Philadelphia, 1877, shows on the map for District 11 that the present Bottom Road led to Gayton's or Guyton's Mill on Little Gunpowder Falls. The name Guyton's Mill is the only clue to the location of the bridge in the original county records:

Journal of Proceedings, County Commissioners  
Volume 7, p. 32 June 29, 1886:

Ordered that the Treasurer pay to Wm. A. Wilson the sum of Five Hundred and Fifty Nine and 50/100 for Balto. Co.'s half for masonry of bridge at Guyton Mill, dividing line between Baltimore & Harford Co.'s.

Journal of Proceedings, County Commissioners  
Volume 7, p. 43 July 14, 1886:

Ordered that the Treasurer pay to Henry A. Nagle the sum of Five Dollars for Harford County's share for examining bridge at Guyton's Mill.

Journal of Proceedings, County Commissioners  
Volume 7, p. 44 July 20, 1886:

Ordered that the Treasurer pay to Wrought Iron Bridge Co., of Canton, O., the sum of Eight Hundred and Fifty five and 05/100 Dolls. for Balto. Co. portion of bridge construction over Little Gunpowder at Guyton's Mill, line of Harford Co., Levy 1885.



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