

Maryland Historical Trust

Maryland Inventory of Historic Properties number: BA-959

Name: SPARKS 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 _____	Eligibility Not Recommended <u>X</u>
Criteria: <u> </u> A <u> </u> B <u> </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>

Sparks

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

MHT No. BA 959

SHA Bridge No. B-18

Bridge name Sparks Road Bridge

LOCATION:

Street/Road name and number [facility carried] Sparks Road over Gunpowder Falls

City/town Sparks

Vicinity X

County 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
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 _____

Describe Setting:

Bridge B-18 carries Sparks Road over Gunpowder Falls approximately 0.5 mile east of York Road. Sparks Road runs generally in an east/west direction in the area while Gunpowder Falls flows to the south. The bridge is situated by the NCCR trail and Sparks Station. The area is relatively undeveloped with few residential buildings around the bridge.

Describe Superstructure and Substructure:

Bridge B-18 is a single span, wrought iron Pratt through truss measuring 178 feet in total length. It has 11 panels of 15'-11", and features diagonal endposts. The top chord is a built-up section of 2 channels and lacing bars. The bottom chord consists of two eyebars. The floor system consists of steel stringers and floorbeams. All verticals consist of 2 channels with lacing bars, and diagonals are double eyebars. All load bearing connections are welded steel. The width of the roadway is 17'-6" between centerline of trusses. There is no sidewalk on the bridge and the truss members are protected by a channel railing. The bridge has a 90 degree alignment. The abutments are masonry with masonry wingwalls.

Discuss Major Alterations:

A steel tied arch was superimposed into the structure in 1990, through the original truss members. The truss structure exists solely for aesthetic purposes; the new arch carries all loads.

HISTORY:

WHEN was the bridge built 1888

This date is: Actual Estimated _____

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

Other (specify): County Commissioners Journal of proceedings

WHY was the bridge built?

To replace an existing wooden bridge. The Maryland Journal of January 21, 1888 reported that the wooden bridge at Sparks Station was unsafe and the County Commissioners ordered notices to be put up warning persons against traveling over the bridge. The County Commissioners ordered the wooden bridge be replaced by a "substantial wrought iron bridge of modern construction".

WHO was the designer?

The Wrought Iron Bridge Company of Canton Ohio, after competing with a number of bridge building companies. On March 3, 1888, the Maryland Journal reported the following proposals for the construction of wrought iron Pratt Truss Bridge over the Gunpowder Falls, near Sparks' Station NCCR trail:

The Penn Bridge Co., Pa	\$4,943.75
H. A. Ramsey & Sons, Baltimore	\$5,795.00
Pittsburg Bridge Co.	\$4,744.00
Wrought Iron Bridge Co., Canton, Ohio	\$4,472.00
Milwaukee Bridge co., Wisc.	\$4,720.00
Dean & Westbrook, New York	\$5,300.00
Lane Bridge Co., Chicago, Ill.	\$5,280.00
King Bridge Co., Cleveland, Ohio	\$5,260.00
Mt. Vernon Bridge Co., Ohio	\$6,550.00

WHO was the builder?

The Wrought Iron Bridge Company of Canton Ohio. The Journal of Proceedings, County Commissioners of March 27 1888 reported the contract was awarded to the Wrought Iron Bridge Co., Canton, Ohio, they being the lowest bidders at \$4,472.00

The bridge was finished by August 1888, when the Journal of Proceedings, County Commissioners reported that the "Treasurer pay to the Wrought Iron Bridge Co. of Canton, Ohio, Four thousand, four hundred and seventy-two Dolls. for Wrought Iron Bridge over Gunpowder Falls near Sparks Station N.C.R.R."

WHY was the bridge altered?

In order to increase the load capacity.

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

Bridge B-18 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

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

Bridge B-18 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 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.

Baltimore County Trends

Perhaps due to its proximity to Baltimore City and the city's importance for metal truss bridge building in Maryland, Baltimore County appears to have taken the lead among Maryland counties in erecting metal truss bridges at an early date, not always with the happiest of results. By 1868 the county apparently had erected an iron truss bridge in Phoenix, a bridge that met the same fate as so many in 1868 and was washed away by the floods of November (MD Journal 1868). Although metal trusses were more resistant to this sort of misfortune than the timber bridges they were beginning to replace, the loss of this bridge may have caused some second thoughts about the invincibility of metal trusses, for in 1874 the county solicited sealed proposals "for building an open wooden truss bridge, on the Burr Truss plan, over the Gunpowder Falls..." (Proposals for a Bridge 1874).

Despite this regression, there is a great deal of evidence that metal truss bridges were totally back in favor by the 1880s. A number of truss bridges were advertised in the 1870s and 1880s. As an example, in 1884 H.A. Nagle, Superintendent of Bridges for Baltimore County, advertised for sealed proposals for "a wrought iron Pratt truss bridge over the Big Gunpowder Falls". Nagle was very specific about what type of bridge the county wanted, stipulating that "parties tendering must furnish a clearly made out strain sheet of their design" for a "through bridge, consisting of one span 86 feet between masonry" with a roadway "12 feet wide in the clear and not less than 13 feet high in the clear" (Proposals for an Iron Bridge 1884).

Such advertisements attracted responses from a number of companies; one such advertisement for yet another bridge over Gunpowder Falls received bids from nine bridge companies, including The Penn Bridge Company, H.A. Ramsay and Sons, Pittsburg Bridge Company, the Wrought Iron Bridge Company, and the King Bridge Company. (Bids for an Iron Bridge 1888). Clearly, the Superintendent of Bridges was able to satisfy his requirements for metal truss bridges in Baltimore County.

Five extant metal truss bridges were identified in Baltimore County as a result of SHA's 1994-1995 historic bridge survey:

- B-17, a single span Pratt truss built in 1879
- B-18, a single span Pratt truss built in 1888
- B-29, a single span Pratt truss built in 1893
- B-45, a single span Pratt truss built in 1898
- B-54, a single span Parker truss built in 1934

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 replacement bridge at this location. The new bridge was constructed quickly, within eight months of the condemnation of the old wooden bridge, thus indicating that this was an existing important road in this area of Baltimore County. It likely did not significantly impact the growth and development of the 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 is located in a rural area adjacent to the Gunpowder Falls State Park Trail, Sparks railroad station and the NCCR equipment yards; this area may be eligible for historic designation. However, the bridge has lost its historic visual characteristics. It maintains its scale and materials and would neither add to nor detract from the historic/visual character of the potential district.

Is the bridge a significant example of its type?

The bridge is not a significant example of its type; it no longer embodies the characteristics of a metal truss bridge.

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

The bridge does not retain integrity of its important elements. A significant number of the character defining elements of this bridge have been replaced with members that are clearly modern in character. In addition, a modern arch has been superimposed into the truss, piercing its members and detracting from the historic character of the truss. The truss function is strictly "ornamental".

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

The original truss was a significant example of the Wrought Iron Bridge Company of Canton, Ohio.

The bridge was 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.

67-959

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

Bridge B-18 is listed in the Maryland Historical Trust's Inventory of historic sites, prior to the extensive alteration undergone in 1990. 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 Paula Spero/Colin Farr

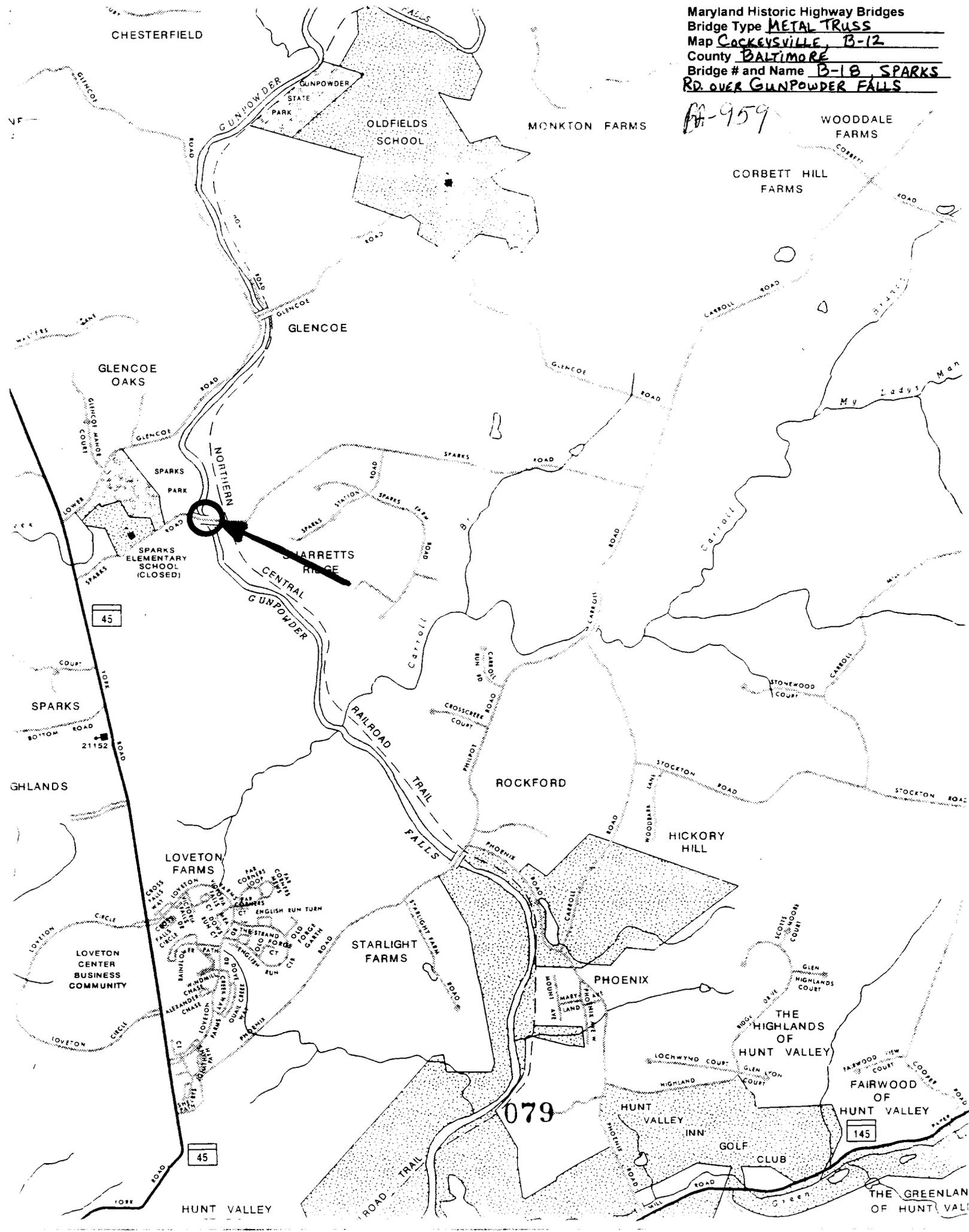
Organization/Address P.A.C. Spero & Co., 40 W. Chesapeake Avenue, Suite 412, Baltimore, Maryland 21204

Phone number 410-296-1635

FAX number 410-296-1670

Maryland Historic Highway Bridges
Bridge Type METAL TRUSS
Map COCKEYSVILLE, B-12
County BALTIMORE
Bridge # and Name B-18 SPARKS
RD. OVER GUNPOWDER FALLS

BH-959







- 1) BA-952
- 2) Sparks Road Bridge
- 3) Baltimore
- 4) John Furr
- 5) Feb. 1976
- 6) P.A.C. Spores Company, Tall on MD 220
- 7) Sparks Road Bridge, bottom chord, truss member, and new steel arch
- 8) c of b



818 MODERN BOTTOM CURB
AND DECK BEAM

3

- 1) P.O. - 159
- 2) Sparks Road Bridge
- 3) Ba Hinton
- 4) Colin Farr
- 5) Feb. 1996
- 6) P.A.C. Sparks Company, Towson, MD 21284
- 7) Sparks Road Bridge, Modern Bottom Curb & Deck Beam
- 8) 3 of 6



1) BA-957

2) Sparks Road Bridge

3) Baltimore

4) Colin Farr

5) Feb. 1996

6) P.A.C. Sparks Company, Towson, MD 21204

7) Sparks Road Bridge, Lower Connection

8) 4 of 6

by 2/11/96



1) BA-959

2) Sparks Road Bridge

3) Baltimore

4) Colin Farr

5) Feb. 1996

6) P A C Sperry & Company, Towson, MD 21204

7) Sparks Road Bridge, Truss member
intersection w/ steel arch

8) 5 of 6

LOWER CORNER

B18



318

BEARING, BOWSTRING,
and END POST

4

1) BA-959

2) Sparks Road Bridge

3) Baltimore

4) Colin Farr

5) Feb 1996

6) P.A.C. Spero & Company, Towson, MD 21286

7) Sparks Road Bridge, Bearing, Bowstring,
and End Post

8) 6 of 6

BA-959

Sparks Road Bridge over Gunpowder Falls
Wrought Iron Bridge Company

SPARKS ROAD BRIDGE

BA 959

Journal of Proceedings, County Commissioners
Vol. 7, p. 337 March 27 1888:

Ordered that the Contract for constructing a Bridge over the Gunpowder Falls near Sparks Station N.C.R.R. 7th District, be and the same is hereby awarded to the Wrought Iron Bridge Co., Canton, Ohio, they being the lowest bidders at \$4,472.00

Bids for an Iron Bridge.--The County Commissioners on Tuesday, 27th inst., opened the proposals for the construction of a wrought iron Pratt Truss Bridge over the Gunpowder Falls, near Sparks' Station, N.C.R.W. The following were the bids:

The Penn Bridge Co., Pa.	\$4,943.75
H. A. Ramsey & Sons, Baltimore	5,795.00
Pittsburgh Bridge Co.	4,745.00
Wrought Iron Bridge Co., Canton, O.	4,472.00
Milwaukee Bridge Co., Wisc.	4,720.00
Dean & Westbrook, New York	5,300.00
Lane Bridge Co., Chicago, Ill.	5,280.00
King Bridge Co., Cleveland, Ohio	5,262.00
Mt. Vernon Bridge Co., Ohio	6,550.00

The Commissioners held the proposals over for consultation.

--Maryland Journal, Towson, March 31, 1888

Journal of Proceedings, County Commissioners
Vol. 7, p. 382 June 19, 1888:

Ordered that the Treasurer pay to Noah Hedrick six hundred ⁰⁰ Dolls. on account of stone work done on bridge Sparks Sta.

Journal of Proceedings, County Commissioners
Vol. 7, p. 402 August 8, 1888:

Ordered that the Treasurer pay to the Wrought Iron Bridge Co. of Canton, Ohio, Four thousand, four hundred and seventy-two ⁰⁰ Dolls. for Wrought Iron Bridge over Gunpowder Falls near Sparks Sta. N.C.R.R.

Journal of Proceedings, County Commissioners
Vol. 7, p. 407 August 23, 1888:

Ordered that the Treasurer pay to Noah Hedrick Seven Hun. & thirty four 82/ ⁰⁰ Dolls. in full for building bridge at Sparks Sta.

111875.
SPARKS ROAD IRON BRIDGE (District 10) Bridge # 18 BA 959

Bridge Out of Repair.--The bridge over the Gunpowder Falls, near Sparks Station, on the N.C.R.W., was reported to the County Commissioners on the 17th inst. by Mr. Wm. H. Shipley, the Superintendent of Bridges, as being in need of repair and in an unsafe condition. The County Commissioners ordered notices to be put up warning persons against traveling over the bridge. The County Commissioners have, under consideration, ordered the replacing of the wooden bridge by a substantial wrought iron bridge of modern construction.

---Maryland Journal, Towson, January 21, 1888



⋮
⋮
⋮
|

BA-959



·
|

·
·
·

BA-959



·
|

·
·
·

BA-959



BA-959



⋮
⋮
|

BA-959