

Maryland Historical Trust

Maryland Inventory of Historic Properties number: F-4-4.

Name: EAST CHURCH HILL RD

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>

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

MHT No. F 4-4

SHA Bridge No. F16-15 Bridge name East Church Hill Road over Middle Creek

**LOCATION:**

Street/Road name and number [facility carried] East Church Hill Road

City/town Myersville

Vicinity X

County Frederick

This bridge projects over: Road  Railway  Water  Land

Ownership: State  County  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

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 \_\_\_\_\_

F-4-4

**DESCRIPTION:**

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

**Describe Setting:**

Bridge F16-15 carries East Church Hill Road over Middle Creek in the vicinity of Myersville, Frederick County. East Church Hill Road runs generally in an east-west direction in the area while Middle Creek flows north-south. The bridge is situated in a rural area near an intersection with a state highway. The area is relatively undeveloped with farmland and woods around the bridge.

**Describe Superstructure and Substructure:**

Bridge F16-15, constructed in 1908, is a single-span, Warren pony truss measuring 19.7 meters (64.67 feet) in total length. It has four panels with diagonal endposts. The top chord is a built-up section of two steel channels with a cover plate connected by rivets. The bottom chord is a built-up section of two steel angles and cross bars connected with rivets. The floor system has three steel stringers and steel floorbeams. All verticals and diagonals are paired angles with cross bars. All original connections are riveted. The width of the roadway is 3.44 meters (11.29 feet) and the distance between the centerline of the trusses is 4.06 meters (13.33 feet). There is no sidewalk and no railings on the bridge. The bridge, which is aligned 90° to the streambed, is posted for 2.7 tonnes (3 tons) and has a sufficiency rating of 21.4. The abutments are stone with flared stone wing walls. There are three plaques on the bridge. One plaque on the east diagonal endpost identifies that the bridge was constructed by the York Bridge Company in 1908. The second plaque is on the east diagonal endpost and identifies the county commissioners, while the third plaque is located on the northwest diagonal endpost and also identifies the county commissioners. The names of the commissioners are not legible.

**Discuss Major Alterations:**

According to the county engineer of Frederick County, the bridge was originally built with riveted connections. The bridge was repaired in 1994. Each diagonal endpost received a new section of channel and cover plate, and new stringers and floorbeams were installed. According to the 1996 inspection report, the bridge is in good condition and requires only cleaning and painting of the floorbeams, spot painting elsewhere, and repairing a section of broken abutment.

**HISTORY:**

WHEN was the bridge built 1908

This date is: Actual X Estimated \_\_\_\_\_

Source of date: Plaque X Design plans \_\_\_\_\_ County bridge files/inspection form X

Other (specify): \_\_\_\_\_

**WHY was the bridge built?**

The bridge was constructed in response to the need for more efficient transportation network and increased load capacity.

**WHO was the designer?**

York Bridge Company

F-4-4

**WHO was the builder?**

York Bridge Company

**WHY was the bridge altered?**

The bridge was altered to ensure its structural integrity.

**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 \_\_\_\_\_**

The bridge was previously surveyed by the Frederick County Office of Historic Preservation in 1978; however, no determination of eligibility was made by the Maryland Historical Trust. The bridge does not have National Register significance.

**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. Frederick County erected numerous truss spans during that time. Records indicate that in the early twentieth century the York Bridge Company built a number of metal trusses there, primarily Pratt but also Warren and Parker trusses. In the same county, King Iron Bridge Manufacturing Company erected several bowstring pony truss bridges.

The East Church Hill Road Bridge is a Warren Truss. Patented in 1846 by British engineers James Warren and Willoughby Monzoni, the Warren truss and its variants constitute a commonly built metal truss bridge type of the nineteenth and early twentieth centuries. The original form of the Warren was purely a series of equilateral triangles in which the diagonals carried both compressive and tensile loads. Later, verticals were added but served only as bracing for the entire triangular web system between parallel top and bottom chords. Like the Pratt truss, the Warren truss was widely built throughout the United States from the middle of the nineteenth century well into the twentieth century, and spawned many variants, including a double intersection, or lattice, subtype in which two triangular truss systems are superimposed with or without verticals.

**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 is located in an area which does not appear to be eligible for historic designation.

**Is the bridge a significant example of its type?**

The bridge has been altered and lacks such character-defining features as the original floor system and diagonal endposts.

F-4-4

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

This bridge was repaired in 1994, resulting in the loss of such character-defining elements as the original floor system and diagonal endposts.

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

The bridge is not a significant example of the work of a manufacturer, designer, and/or engineer.

**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 X      SHA inspection/bridge files     
Other (list):

Frederick County Office of Historic Preservation, *Maryland Historical Trust Inventory Form for State Historic Sites Survey #F 4-4*. 1978.

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 WALKERSVILLE B-9

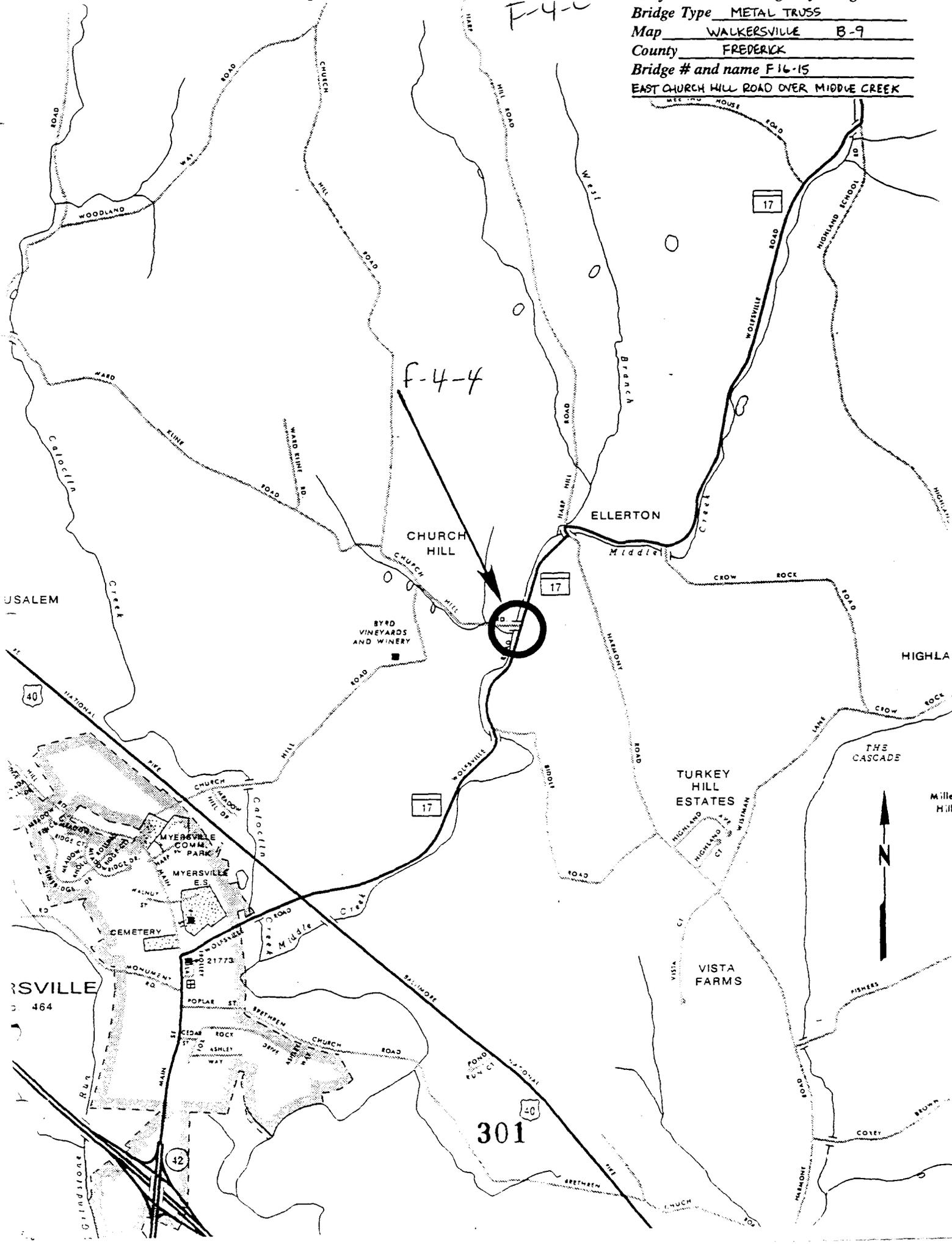
County FREDERICK

Bridge # and name F16-15

EAST CHURCH HILL ROAD OVER MIDDLE CREEK

F-4-c

F-4-4



301





1. F4-4
2. F 16-15, East Church Hill Road over Middle Creek
3. Frederick County, MD
4. Ryan McKay
5. July 1997
6. MD SHPO
7. East approach
8. lot 5



1. F4-4
2. F16-15, East Church Hill Road over Middle Creek
3. Frederick County, MD
4. Ryan McKay
5. July 1997
6. MD SHPO
7. West approach
8. 2 of 5



1. F4-4

2. F14-15, East church Hill Road over Middle Creek

3. Frederick County, MD

4. Ryan McHenry

5. July 1997

6. MD SHPO

7. Up stream elevation

8. 3 of 5



1. F4-4

2. F 14-15, East Church Hill Road over Middle Creek

3. Frederick County, MD

4. Ryan McKay

5. July 1997

6. MD SHPO

7. Down stream elevation

8. 41 of 5



1. F 4-4
2. F 16-15, East Church Hill Road over Middle Creek
3. Frederick County, MD
4. Ryan McKay
5. July 1997
6. MD SHPO
7. Detail of upstream truss
8. 5 of 5

F-4-4  
Church Hill Bridge  
Catoclin  
Public

1908

The Church Hill Bridge is a single span pony pratt steel truss bridge which spans the West Branch near Myersville. The single lane bridge is set on random stone abutments and is approximately thirty feet in length and is fifteen feet wide. Joints of the bridge are secured with rivetted connections. A nameplate, located on a half hip of the structure, indicated that it was built by the York Bridge Company of York, Pennsylvania in 1908.

Iron truss bridges were the most popular form of bridge construction in Frederick County, Maryland between the 1870's and 1930's. The Church Hill Bridge is one of at least twelve bridges built by the York Bridge Company of York, Pennsylvania for the county in the early part of the 1900's.

According to Polk's York City Directory, the York Bridge Company was most active between the years 1902 and 1817, advertising as "Bridge builders, iron and steel structural work, etc." By 1917, the company had changed its name to the York Bridge and Construction Company.

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MARYLAND HISTORICAL TRUST

F-4-4  
1101133717

INVENTORY FORM FOR STATE HISTORIC SITES SURVEY

**1 NAME**

HISTORIC Church Hill Bridge

AND/OR COMMON

**2 LOCATION**

STREET & NUMBER

Church Hill Road over West Branch

CITY, TOWN

Catoctin

STATE

Maryland

— VICINITY OF

CONGRESSIONAL DISTRICT

E.D. 6

COUNTY

Frederick

**3 CLASSIFICATION**

CATEGORY	OWNERSHIP	STATUS	PRESENT USE	
<input type="checkbox"/> DISTRICT	<input checked="" type="checkbox"/> PUBLIC	<input type="checkbox"/> OCCUPIED	<input type="checkbox"/> AGRICULTURE	<input type="checkbox"/> MUSEUM
<input type="checkbox"/> BUILDING(S)	<input type="checkbox"/> PRIVATE	<input type="checkbox"/> UNOCCUPIED	<input type="checkbox"/> COMMERCIAL	<input type="checkbox"/> PARK
<input checked="" type="checkbox"/> STRUCTURE	<input type="checkbox"/> BOTH	<input type="checkbox"/> WORK IN PROGRESS	<input type="checkbox"/> EDUCATIONAL	<input type="checkbox"/> PRIVATE RESIDENCE
<input type="checkbox"/> SITE	<b>PUBLIC ACQUISITION</b>	<b>ACCESSIBLE</b>	<input type="checkbox"/> ENTERTAINMENT	<input type="checkbox"/> RELIGIOUS
<input type="checkbox"/> OBJECT	<input type="checkbox"/> IN PROCESS	<input checked="" type="checkbox"/> YES: RESTRICTED	<input type="checkbox"/> GOVERNMENT	<input type="checkbox"/> SCIENTIFIC
	<input type="checkbox"/> BEING CONSIDERED	<input type="checkbox"/> YES: UNRESTRICTED	<input type="checkbox"/> INDUSTRIAL	<input checked="" type="checkbox"/> TRANSPORTATION
		<input type="checkbox"/> NO	<input type="checkbox"/> MILITARY	<input type="checkbox"/> OTHER

**4 OWNER OF PROPERTY**

NAME Frederick County Roads Dept.

Telephone #:

STREET & NUMBER

Montevue Lane

CITY, TOWN

Frederick

— VICINITY OF

STATE, zip code

Maryland 21701

**5 LOCATION OF LEGAL DESCRIPTION**

COURTHOUSE,  
REGISTRY OF DEEDS, ETC.

Liber #:

Folio #:

STREET & NUMBER

CITY, TOWN

STATE

**6 REPRESENTATION IN EXISTING SURVEYS**

TITLE

DATE

—FEDERAL —STATE —COUNTY —LOCAL

DEPOSITORY FOR  
SURVEY RECORDS

CITY, TOWN

STATE

# 7 DESCRIPTION

F-4-4

CONDITION		CHECK ONE	CHECK ONE
<input checked="" type="checkbox"/> EXCELLENT	<input type="checkbox"/> DETERIORATED	<input type="checkbox"/> UNALTERED	<input type="checkbox"/> ORIGINAL SITE
<input type="checkbox"/> GOOD	<input type="checkbox"/> RUINS	<input type="checkbox"/> ALTERED	<input type="checkbox"/> MOVED DATE _____
<input type="checkbox"/> FAIR	<input type="checkbox"/> UNEXPOSED		

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DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

The Church Hill bridge is a single span pony pratt steel truss bridge which spans the West Branch near Myersville. The single lane bridge is set on random stone abutments and is approximately thirty feet in length and is fifteen feet wide. Joints of the bridge are secured with rivetted connections.

A nameplate, located on a half hip of the structure, indicates that it was built by the York Bridge Company of York, Pennsylvania in 1908.

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CONTINUE ON SEPARATE SHEET IF NECESSARY

**8 SIGNIFICANCE**

F-4-4

PERIOD	AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW			
PREHISTORIC	<input type="checkbox"/> ARCHEOLOGY-PREHISTORIC	<input type="checkbox"/> COMMUNITY PLANNING	<input type="checkbox"/> LANDSCAPE ARCHITECTURE	<input type="checkbox"/> RELIGION
1400-1499	<input type="checkbox"/> ARCHEOLOGY-HISTORIC	<input type="checkbox"/> CONSERVATION	<input type="checkbox"/> LAW	<input type="checkbox"/> SCIENCE
<input type="checkbox"/> 1500-1599	<input type="checkbox"/> AGRICULTURE	<input type="checkbox"/> ECONOMICS	<input type="checkbox"/> LITERATURE	<input type="checkbox"/> SCULPTURE
<input type="checkbox"/> 1600-1699	<input type="checkbox"/> ARCHITECTURE	<input type="checkbox"/> EDUCATION	<input type="checkbox"/> MILITARY	<input type="checkbox"/> SOCIAL/HUMANITARIAN
<input type="checkbox"/> 1700-1799	<input type="checkbox"/> ART	<input checked="" type="checkbox"/> ENGINEERING	<input type="checkbox"/> MUSIC	<input type="checkbox"/> THEATER
<input type="checkbox"/> 1800-1899	<input type="checkbox"/> COMMERCE	<input type="checkbox"/> EXPLORATION/SETTLEMENT	<input type="checkbox"/> PHILOSOPHY	<input checked="" type="checkbox"/> TRANSPORTATION
<input checked="" type="checkbox"/> 1900-	<input type="checkbox"/> COMMUNICATIONS	<input type="checkbox"/> INDUSTRY	<input type="checkbox"/> POLITICS/GOVERNMENT	<input type="checkbox"/> OTHER (SPECIFY)
		<input type="checkbox"/> INVENTION		

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SPECIFIC DATES      1908                                      BUILDER/ARCHITECT      York Bridge Company

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STATEMENT OF SIGNIFICANCE

Iron truss bridges were the most popular form of bridge construction in Frederick County, Maryland between the 1870's and 1930's. The Church Hill Bridge is one of at least twelve bridges built by the York Bridge Company of York, Pennsylvania for the county in the early part of the 1900's.

According to Polk's York City Directory, the York Bridge Company was most active between the years 1902 and 1817, advertising as "Bridge builders, iron and steel structural work, etc." By 1917, the company had changed its name to the York Bridge & Construction Company.

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F-4-4

**9 MAJOR BIBLIOGRAPHICAL REFERENCES**

CONTINUE ON SEPARATE SHEET IF NECESSARY

**10 GEOGRAPHICAL DATA**

ACREAGE OF NOMINATED PROPERTY \_\_\_\_\_

VERBAL BOUNDARY DESCRIPTION

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE	COUNTY
STATE	COUNTY

**11 FORM PREPARED BY**

NAME / TITLE

Cherilyn Widell, Sites Analyst

ORGANIZATION

Frederick County Office of Historic Preservation

DATE

9/26/78

STREET & NUMBER

12 East Church St., Winchester Hall

TELEPHONE

694-1063

CITY OR TOWN

Frederick

STATE

Maryland

The Maryland Historic Sites Inventory was officially created by an Act of the Maryland Legislature, to be found in the Annotated Code of Maryland, Article 41, Section 181 KA, 1974 Supplement.

The Survey and Inventory are being prepared for information and record purposes only and do not constitute any infringement of individual property rights.

RETURN TO: Maryland Historical Trust  
The Shaw House, 21 State Circle  
Annapolis, Maryland 21401  
(301) 267-1438



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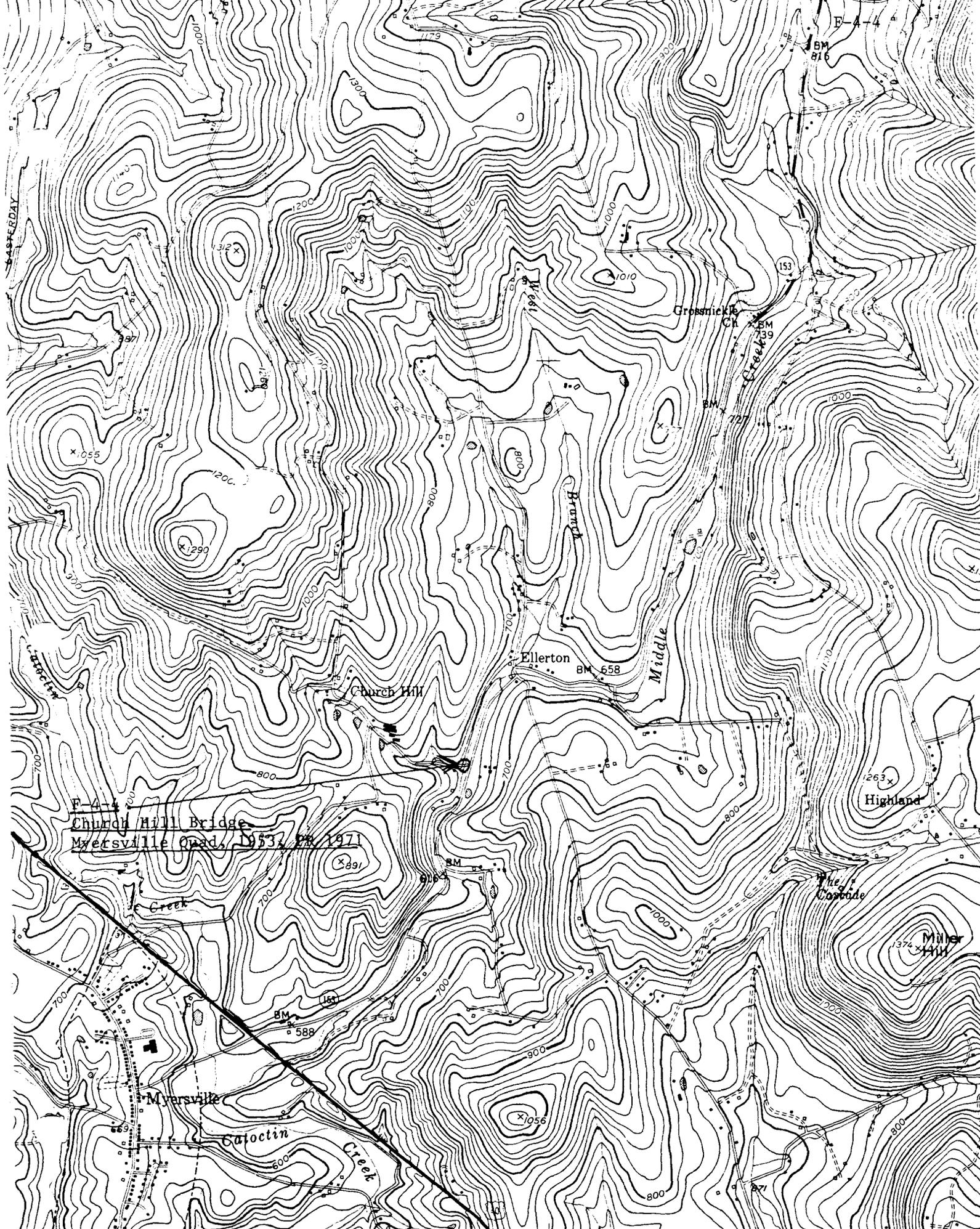
Scale 0 1 2 3 4 Miles  
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TRUE NORTH  
 MAGNETIC NORTH  
 APPROXIMATE MEAN  
 DECLINATION 1909

Edition of June 1912, reprinted 1928  
 Polyconic projection, North American datum

HAGERSTOWN, MD-PA.





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