

Maryland Historical Trust

Maryland Inventory of Historic Properties number: F-I-132 F-1-132

Name: MD 28 OVER MONOCACY

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.

<b>MARYLAND HISTORICAL TRUST</b>	
Eligibility Recommended <input checked="" type="checkbox"/>	Eligibility Not Recommended <input type="checkbox"/>
Criteria: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D Considerations: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E <input type="checkbox"/> F <input type="checkbox"/> G <input type="checkbox"/> 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>

*me*

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

F-1-132  
MHT No. F-1-132

SHA Bridge No. 10029

Bridge name MD 28 over Monocacy

**LOCATION:**

Street/Road name and number [facility carried] MD Route 28

City/town Dickerson

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 \_\_\_\_\_

**DESCRIPTION:**

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

**Describe Setting:**

Bridge 10029 carries Maryland Route 28 over Monocacy River approximately 2 miles north of the town of Dickerson. Route 28 runs generally in a east/west direction in the area while Monocacy River flows to the South. The bridge is situated in a treed valley. The area is relatively undeveloped with few residential buildings around the bridge.

**Describe Superstructure and Substructure:**

Bridge 10029 is a three span, Camelback truss measuring 446 feet in total length. Each truss has 8 panels and measures 145'; the endposts are inclined. The top chord is a built-up section of two channels with cover plates and lacing bars. The bottom chord is a built-up section of 2 channels and stay plates. The floor system has I-beam stringers and floorbeams. The verticals and diagonals consist of rolled I-sections. All connections are rivetted with gusset plates. The clear roadway width is 26'-6". There is no sidewalk on the bridge and the truss members are protected by a concrete curb and steel channel guardrail. The bridge has a 90 degree alignment with the river. The abutments and wingwalls are concrete. There are no plaques on the bridge.

**Discuss Major Alterations:**

No major alterations have been made.

**HISTORY:**

**WHEN was the bridge built** 1931

**This date is:** Actual x Estimated \_\_\_\_\_

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

**Other (specify):** State bridge files

**WHY was the bridge built?**

The bridge was built to replace a three span through truss on this site. The previous bridge consisted of two Pratt through trusses and a bowstring truss.

**WHO was the designer?**

Erected in 1931, this bridge was built according to in-house specifications of the Maryland State Roads Commission, under chairmanship of G. Clinton Uhl, H.D. Williar, Chief Engineer, and W.C. Hopkins, Bridge Engineer. Other Commissioners were William D. Byron and Robert Lacy.

**WHO was the builder?**

Unknown.

**WHY was the bridge altered?**

The bridge has not been altered.

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

It is not known if Bridge 10029 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   X        B- Person                     
 C- Engineering/architectural character   X  

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

This bridge was one of a small but significant number of metal truss bridges erected in Maryland from the 1920s through the 1940s. Its heavy, solidly configured members, wide deck, and higher vertical clearance reflects continuing advances in metal truss construction in response to heavier and taller (trucks) loads. Thus configured, the metal truss bridge continued to be designed for major crossings. Such bridges were built throughout the state during the period, particularly in the 1930s.

**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. 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.

### Frederick County Trends

In 1854, the weekly Frederick Examiner announced that wrought iron was being used as a bridge material and proved to be stronger than the wood truss construction that had been in general use. At that time it was hoped that such an iron bridge would soon be constructed in Frederick County.

It appears from the Frederick County Commissioners Minutes that iron truss bridges became popular in the area during the 1870s. Records show that a variety of companies, including Groton Manufacturing Company, Groton, New York; Wrought Iron Bridge Company, Canton Ohio; King Iron Bridge Company, Cleveland Ohio; and the Pittsburg Bridge Company, Pittsburgh, Pennsylvania, constructed bridges throughout the county. Iron truss bridges were an innovative step toward good bridge engineering design in the nineteenth century and were pride of every community.

Truss bridges appear to have been the most popular form of bridge construction in Frederick County between the 1870s and 1930s. Large numbers were built to span small crossings, greatly facilitating vehicular movement and communications throughout the developing county. Frederick County once had scores of such bridges; however, as technology and use requirements have changed, they have been replaced at an increasing rate. According to information provided to the Maryland Historical Trust by Frederick County Department of Public Works, as reported in a prior Maryland Historical Trust survey form, 24 metal truss bridges remained on county roads.

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

- F-312, single span Pratt pony truss built c. 1900
- F-405, single span Pratt through truss built in 1882
- F-407, single span Pratt through truss built in 1914
- F-506, single span Parker truss built in 1908
- F-508, single span Pratt pony truss built in 1908
- F-510, single span Pratt through truss built in 1914
- F-1202, single span Pratt pony truss built c. 1900-1910
- F-1624, single span Pratt pony truss built in 1918
- F-1701, single span Pratt through truss built c. 1890-1900

F-2203, single span, double intersection Pratt truss built 1878  
 F-2204, single span Pratt through truss built c. 1910  
 10017, eight span camelback truss built in 1939  
 10018, a single span Pratt truss built in 1934  
 10029, single span Camelback truss built in 1931  
 10055, two Pratt through trusses built in 1932

**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 replaced a three span through truss at this location. It likely did not have a significant impact on 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 not located in an area which may be eligible for historic designation.

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

The bridge is a significant example of a late, heavily structured camelback truss.

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

This bridge retains integrity of location, design, setting, materials, workmanship, feeling and association. Its components appear to be intact.

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

Unknown.

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

Bridge 10029 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 X

**Other (list):**

County survey files of the Maryland Historical Trust

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

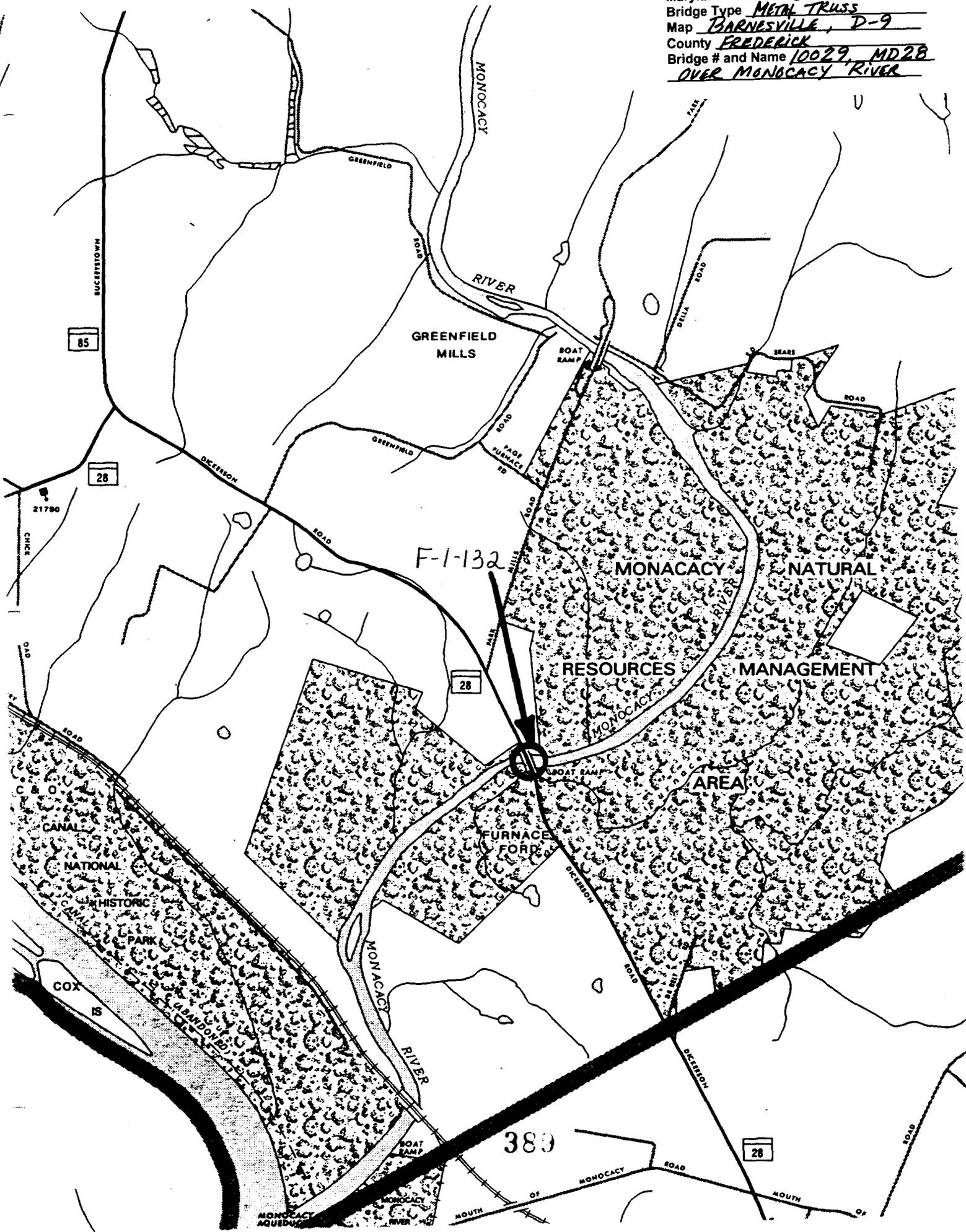
**Name of surveyor** Paula Spero/Colin Farr

**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 BARNESVILLE, D-9  
County FREDERICK  
Bridge # and Name 10029, MD28  
OVER MONOCACY RIVER





10029

1) F-1-132

2) MD 28 OVER HONOLUKO RIVER

3) FUELEAK

4) COLIN FARR

5) FEB 1996

6) R.A.C. SYERS & COMPANY, TOWSON, MD.  
21204

7) MD 28 OVER HONOLUKO RIVER

WEST APPROACH

8) ONE OF FIVE



10029

1) F-1-132

2) MD 28 OVER MONOCACY RIVER

3) FREDERICK

4) COLIN FARR

5) FEB 1996

6) PAC SPERO + COMPANY, TOWSON, MD  
21204

7) MD 28 OVER MONOCACY RIVER  
WEST PORTAL

8) TWO OF FIVE



10029

1) F-1-132

2) MD 28 OVER MONOCACY RIVER

3) FREDERICK

4) COLIN FARR

5) FEB 1996

6) P.A.C. SPEED + COMPANY, TOWSON, MD, 21204

7) MD 28 OVER MONOCACY RIVER

NORTH ELEVATION:

8) THREE OF FIVE



10029

- 1) F-1-132
- 2) MD 28 OVER MONOCACY RIVER
- 3) FREDERICK
- 4) COLIN FARR
- 5) FEB 1996
- 6) P.A.C. STERO + COMPANY / TOWSON, MD 21204
- 7) MD 28 OVER MONOCACY RIVER  
LOWER JOINTS
- 8) FOUR OF FIVE



10029

1) F-1-132

2) MD 28 OVER MONOCACY RIVER

3) FREDERICK

4) COLIN FARR

5) FEB 1996

6) P.A.C. SPEED + COMPANY, TOWSON, MD, 21204

7) MD 28 OVER MONOCACY RIVER UNDERDECK

8) FIVE OF FIVE

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

Property/District Name: Bridge #10029, MD 28 over Monocacy Survey Number: ~~F-I-132~~ F-1-132

Project: Rehabilitation of Bridge #10029 Agency: SHA

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)

Bridge No. 10029, MD 28 over Monocacy River, also known as Furnace Road Bridge, is eligible under Criterion A for transportation. Constructed in 1931, the bridge is associated with an important period in Maryland's roadbuilding history. The period after World War I saw vast improvements in the Maryland's highway system. It was characterized by an increasing growth of state-owned and state-aided systems, professionalization of county roads departments and use of standardized designs and reinforced concrete construction. Bridge 10029 was built according to the in-house specifications of the State Roads Commission.

A triple span camelback through truss, Bridge No. 10029, is also eligible under Criterion C as an illustration of the wide range of bridge types constructed in Maryland. Although by 1931 reinforced concrete bridges were being used with increasing frequency, and metal truss bridges with corresponding rarity, the camelback truss design was probably selected for this crossing because it entailed less superstructure construction in the stream and allowed the piers from the previous bridge to be utilized for the new construction. Bridge No. 10029 exhibits the solid appearance characteristic of 20th century metal truss bridges which were constructed to withstand significantly heavier load requirements than their 19th century counterparts. SHA has identified ten extant camelback trusses (or closely related Parker trusses) in the state. Significantly, four of these bridges are currently slated for replacement.

Documentation on the property/district is presented in: MHT inventory Form F-I-132

Project file

Prepared by: John Hnedak, Rita Suffness

Elizabeth Hannold March 29, 1994  
Reviewer, Office of Preservation Services Date

NR program concurrence:  yes  no  not applicable

R. Andrews 3.29.94  
Reviewer, NR program Date

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: Maryland Roads Commission (Clinton Uhl, Commisioner), American Bridge Company

INVENTORY FORM FOR STATE HISTORIC SITES SURVEY

1 NAME

HISTORIC

Furnace Ford Bridge

AND/OR COMMON

Maryland 29/Monocacy River Bridge

2 LOCATION

STREET & NUMBER

NW of Dickerson

CITY, TOWN

Dickerson

X VICINITY OF

CONGRESSIONAL DISTRICT

6th

STATE

Maryland

COUNTY

Frederick

3 CLASSIFICATION

CATEGORY	OWNERSHIP	STATUS	PRESENT USE	
<input type="checkbox"/> DISTRICT	<input checked="" type="checkbox"/> PUBLIC	<input checked="" 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 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 checked="" type="checkbox"/> OBJECT	<input type="checkbox"/> IN PROCESS	<input 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

State Highway Administration DOT

Telephone #:

STREET & NUMBER

301 West Preston Street

CITY, TOWN

Baltimore

VICINITY OF

STATE, zip code

Maryland 21201

5 LOCATION OF LEGAL DESCRIPTION

COURTHOUSE

REGISTRY OF DEEDS, ETC

Frederick County Courthouse

Liber #:

Folio #:

STREET & NUMBER

CITY, TOWN

Frederick

STATE

Maryland

6 REPRESENTATION IN EXISTING SURVEYS

TITLE

DATE

FEDERAL STATE COUNTY LOCAL

DEPOSITORY FOR SURVEY RECORDS

CITY, TOWN

STATE

(2) - 132

# 7 DESCRIPTION

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

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

This bridge, consisting of three steel camelbacks through trusses of 145' in length, each, carries Maryland Route 28 across the Monocacy River at Furnace Ford. The trusses are set end to end, their junctures resting on concrete piers in the stream bed. The roadway, which runs generally NW and SE, is 27' in width. All connections are riveted.

CONTINUE ON SEPARATE SHEET IF NECESSARY

**8 SIGNIFICANCE**

PERIOD		AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW				
<input type="checkbox"/> PREHISTORIC	<input type="checkbox"/> ARCHEOLOGY-PREHISTORIC	<input type="checkbox"/> COMMUNITY PLANNING	<input type="checkbox"/> LANDSCAPE ARCHITECTURE	<input type="checkbox"/> RELIGION		
<input type="checkbox"/> 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	1931	BUILDER/ARCHITECT
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STATEMENT OF SIGNIFICANCE	Built according to in-house specifications of the State Roads Comm., H.D. Williar, Chief Engineer, W.C. Hopkins, Bridge Engineer.
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The bridge plaque associates this structure with Clinton Uhl, State Roads Commission chairman, and a commission of Howard Bruce and John Shaw, (see Uhl notes, general bridge significance of the DOT Survey attached).

**9 MAJOR BIBLIOGRAPHICAL REFERENCES**

Files of the Bureau of Bridge Design, State Highway Administration, 301 West Preston Street, Baltimore, Md. drawer 92

Condit, Carl, American Building Art, 20th Century; New York, Oxford University Press, 1961.

CONTINUE ON SEPARATE SHEET IF NECESSARY

**10 GEOGRAPHICAL DATA**

ACREAGE OF NOMINATED PROPERTY

Quadrangle Name: Poolesville, MD  
Quadrangle Scale: 1:24 000  
UTM References: 18.289400.4346560

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

John Hnedak/M/DOT Survey Manager

ORGANIZATION

Maryland Historical Trust

DATE

1980

STREET & NUMBER

21 State Circle

TELEPHONE

(301) 269-2438

CITY OR TOWN

Annapolis

STATE

Maryland 21401

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

F-1-132

1931

Furnace Ford Bridge  
Dickenson vicinity  
public (unrestricted)

This bridge, consisting of three steel camelback through trusses, each measuring 145 feet in length, carries Maryland Route 28 across the Monocacy River near Furnace Ford, Maryland. The trusses are set end to end, and their junctures rest on concrete piers set into the river bed. The bridge carries a roadbed of 27 foot width.

Erected in 1931, this structure was built according to the in-house specifications of the Maryland State Roads Commission, under the chairmanship of G. Clinton Uhl. Howard Bruce and John Shaw also served as commissioners, H.D. Williar as Chief Engineer and W.C. Hopkins as Bridge Engineer.

Furnace Ford Bridge is one of six historic truss bridges -- part of Maryland's state road system in Frederick County, and one of 26 bridges of the same structural type throughout the state road network -- identified by the Maryland Historical Trust for the Maryland Department of Transportation in a jointly conducted survey done during 1980-81.

## GENERAL BRIDGE SIGNIFICANCE

The significance of bridges in Maryland is a difficult and subtle thing to gauge. The Modified significance criteria of the National Register, which are the standard for these judgements in Maryland, as in most states, must be broadly applied to allow for most of these structures. In particular the 50 year rule which specifies a minimum age for structures can be waived, and is more commonly done so for engineering structures than for others. Questions of uniqueness and typicality, exemplary types, etc., must set aside for now, because they presuppose a wider knowledge of the entire resources than is presently available. Indeed, this survey is an initial step toward understanding the extent to which Maryland's bridges are part of her cultural resources. Aesthetic considerations may have to be side-stepped entirely, for such structures as these are generally considered mundane and ordinary at best, and sometimes a negative landscape feature, by the layman. It does take a specialized aesthetic sense to appreciate such structures on visual grounds, but a case for visual significance can be made. The remaining criteria are those of historical associations. The relative youth of most of these structures precludes a strong likelihood of participation to events and lives of import. The best generalization can be made for most bridges is that they are built on site of early crossings, developing from fords and ferries through covered bridges and wooden trusses to their present state. This significance inheres in the site, however, and in most cases would not be diminished by the absence of the present structure.

These criteria may also be addressed positively. The primary significance of these bridges, those which were built between the two World Wars, consists in their association with rapidly changing modes and trends in transportation in America during the period. The earliest of them saw the appearance of the automobile and its rise as the preëminent means of getting Americans from place to place. Roads were being improved for increased speeds and capacity, and bridges, as potential weak links on the system, became particularly important. The technology for producing them was not new, and would not change significantly during the period. Accordingly, great numbers of easily, quickly and relatively cheaply built concrete slab, beam and arch bridges were built to span the small crossings, or were multiplied to cover longer crossings where height was no problem.

Truss bridges with major structural members of compound beams, of either the Warren or Pratt types, while more expensive and considered more intrusive on the landscape, were built to span the larger gaps,

With an aesthetic which allowed concrete slab bridges to have classical balustrades, or the application of a jazz-age concrete relief; with the considerable variety possible in the construction of medium sized metal trusses; and with the lack of nationwide standards for highway bridge design, the resulting body of structures displays considerable variety. The sameness of appearance of currently produced highway bridges leads one to believe this variety will not reappear. For that reason alone it is wise to keep watch over our existing bridges. Regardless of ones taste and aesthetic preference, one must be admitted that these older bridges add their variety and visual interest to the environment as a whole, and that it is often the case that their replacement by a standard highway bridge results in a visual hole in the landscape.

In situations requiring decisions of potential effect on these structures, they should receive some consideration. As the recording and subsequent understanding of Maryland's Cultural resources grows, they will be recognized as a significant part of that heritage.

It should be noted that two non-negligible classes of structure have been omitted from this set. The first is the huge number of concrete slab or beam bridges of an average of twenty feet or less in length. These are so nearly ubiquitous and of such minor visual impact (they are often easy to drive across without noticing) that they were not inventoried. They are considered in the general recommendations section of the final report of this survey, however.

The second category is that of the "great" bridges, the huge steel crossings of the major waterways. While they are awesome and aesthetically appealing, they are not included in this inventory because they do not share the problems of their more modest counterparts. They do not lack for recognition, they have not been technologically outmoded, and are in no danger of disappearing through replacement. In a sense, they are not as rare; hundreds of

these great bridges are known nationally, and there is little doubt as to the position of any one bridge within national spectrum. There seems little point in including them with the larger inventory of bridges. From an arbitrary point of view, their dates are outside the 1935 limit which we set for the consideration of bridges. We have departed from that limit on occasion, but will not in this case. These bridges, too, will be considered in the final report.

Moveable bridges deserve a special note regarding their significance. They are rare, and all but the most recent of them have been listed by this survey by virtue of that fact alone. They are, by their nature as intermittent impediments to the smooth flow of traffic, threatened. We rarely tolerate disruptions to what we perceive as our progress. This has been demonstrated recently by the replacement of the drawbridge at Denton, on one of the major routes to the Atlantic Coast from the rest of Maryland.

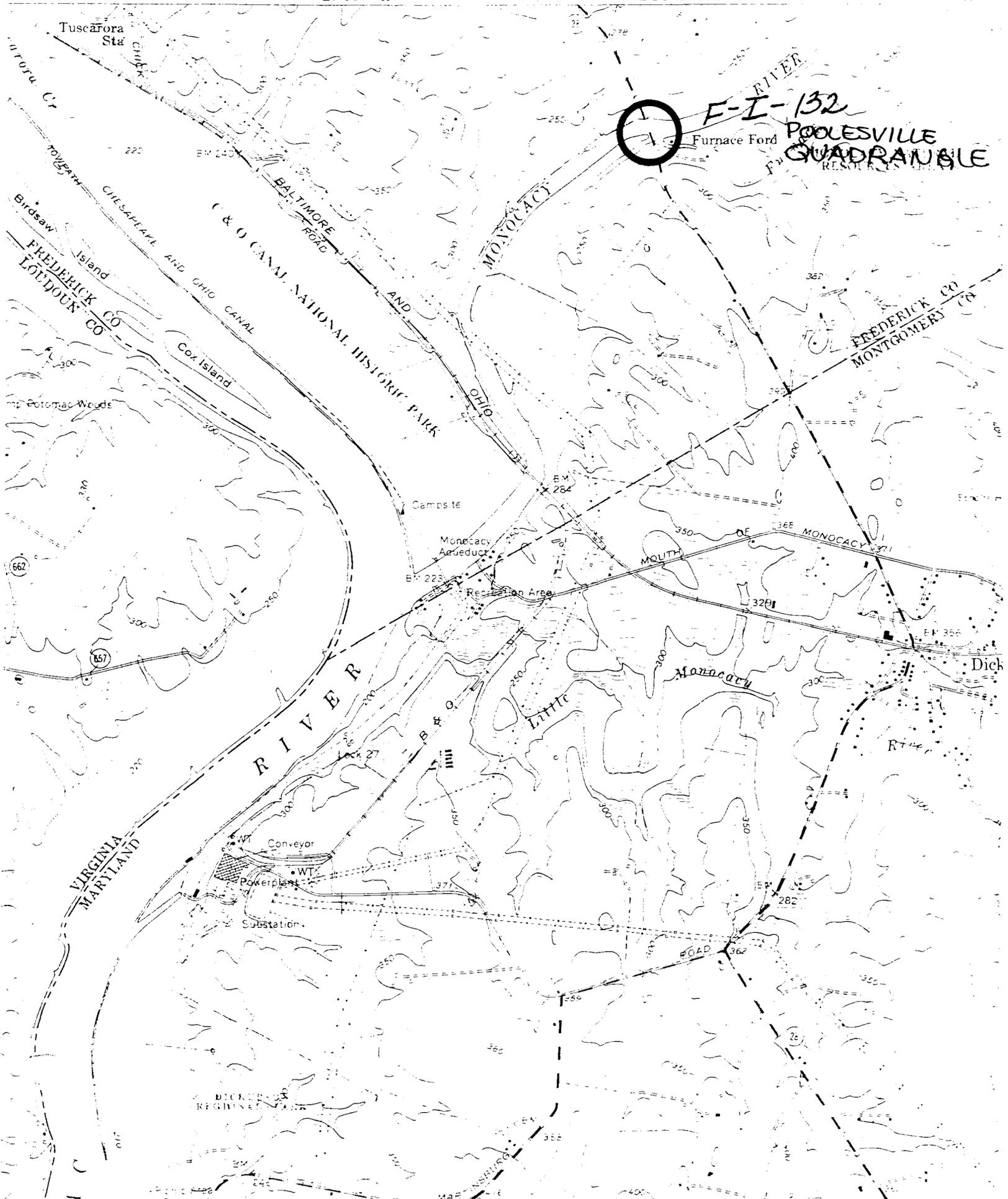
However much we are inconvenienced by them, we must admit that moveable bridges contribute a share of interest to the landscape. As with significance judgements in general, we here enter a realm which is governed by taste and opinion. Some of us might not enjoy being forced to sit back for a while to look at the surroundings which we would otherwise totally ignore, especially if the engine is in danger of boiling over. But there are those who are fascinated by the slow rise of a great chunk of roadway, moved by quiet, often invisible machinery; who are amused by the tip of the mast which skims the top of the temporary wall; or who reflect on the nobility inherent in a river and the fact that we have not subdued every waterway with our autos, while knowing that we can if we want to.

G. Clinton Uhl (1871-1934)

This bridge has been associated with the name of Clinton Uhl, either by direct reference or by the coincidence of its date of construction with Mr. Uhl's tenure as chairman of the State Roads Commission.

Mr. Uhl's life is but sketchily known at present. His name is physically incirbed on more bridges of this period than that of any other individual, and it may be inferred that he was to some not-inconsiderable extent responsible for the shape taken by the state's road and bridge system in the middle 1930s, and possibly, at least in terms of construction policy, for some time beyond that.

From Uhl's obituary, found in the Baltimore Sun of 6 August 1934, we learn that he became interested in roads at age 20 because of difficulties encountered while trying to excute the duties of a delivery boy, in the employ of the McMullen Brothers of Cumberland. He was sufficently energetic and ambitious to establish "Clinton Uhl and Company", a general store; the Maryland Shoe Company; both in Cumberland; the Greenbriar Quarry; and the Mt. Savage Fuel Company. He became a member of the board of road directors of Allegany County in 1905. In 1916 he was appointed to the State Roads Commission, becoming its chairman in 1929 and serving until his death. The one dark spot in his career seems to have been an accusation by a West Virginia contractor that he (the contractor) was denied a contract for refusing to buy stone from the Greenbriar Quarry. Uhl was cleared of all charges of misconduct with the help of Governor Ritchie. The roads of Allegany were considered to be the best in the State during Uhl's tenure there.



F-I-132

POOLESVILLE  
QUADRANGLE

Furnace Ford

FREDERICK CO  
MONTGOMERY CO

RIVER

MONOCACY

Monocacy

Little

VIRGINIA  
MARYLAND

Conveyor  
Powerplant  
Substation

Monocacy  
Aqueduct

Rest Area

Dick

DICKENS  
REGIONAL PARK

ROAD

26

MARYLAND



F-1-132

Furnace Ford Bridge

M/DoT

Hnedak/Meyer

Summer 1980



F-1-132

Furnace Ford Bridge

M/DOOT

Hnedak/Meyer

Summer 1970