

Maryland Historical Trust

Maryland Inventory of Historic Properties number: CE-1467

Name: 7027/US 222 Over Rock Run

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 _____	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>

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

MHT No. CE-1467

SHA Bridge No. 7027 Bridge name US 222 over Rock Run

**LOCATION:**

Street/Road name and number [facility carried] US 222

City/town Port Deposit Vicinity \_\_\_\_\_

County Cecil

This bridge projects over: Road \_\_\_\_\_ Railway \_\_\_\_\_ Water X Land \_\_\_\_\_

Ownership: State X County \_\_\_\_\_ Municipal \_\_\_\_\_ Other \_\_\_\_\_

**HISTORIC STATUS:**

Is the bridge located within a designated historic district? Yes X No \_\_\_\_\_

National Register-listed district X National Register-determined-eligible district \_\_\_\_\_

Locally-designated district \_\_\_\_\_ Other \_\_\_\_\_

Name of district Port Deposit Historic 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 X \_\_\_\_\_:  
Concrete Arch \_\_\_\_\_ Concrete Slab X Concrete Beam \_\_\_\_\_ Rigid Frame \_\_\_\_\_  
Other \_\_\_\_\_ Type Name \_\_\_\_\_

**DESCRIPTION:**

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

**Describe Setting:** Bridge No. 7027 carries US 222 over Rock Run at the north end of the town of Port Deposit in western Cecil County. Adjacent to the bridge is a eighteenth century stone mill and several late nineteenth century houses. To the west is a concrete arch railroad bridge.

**Describe Superstructure and Substructure:**

The structure is a concrete slab bridge built in 1930 composed of two simple spans, each with a clear span of 17'- 6" between abutments and pier. The bridge conforms to the 1924 standard plans for 18'- 0" slab bridge except that this bridge has 2-4" diameter drains at midspan along the west gutterline of each span. The bridge has approximately 4" of bituminous wearing surface above the concrete slabs. The bridge has an out-to-out superstructure width of 26'-4", a 24'- 0" clear roadway, and solid concrete parapets. This structure is next to the historic Rock Run Mill which dates to 1729. The concrete on the underside of the slabs is severely deteriorated. A 1993 inspection report states that there were loose stones in a rubble retaining wall on the southeast corner of the bridge. It stated that this rubble retaining wall is probably older than the bridge and has been incorporated into it. This inspection also revealed heavy efflorescence coming through between the deck slabs on the west side of the bridge over the pier. The solid shaft pier has some hollow sounding concrete at the top and worn concrete along the waterway. There is also a horizontal crack in the southwest wingwall.

**Discuss Major Alterations:**

There have been no major alterations to this bridge.

**HISTORY:**

**WHEN was the bridge built** 1930

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

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

Other (specify): SHA files

**WHY was the bridge built?**

The need for a more efficient transportation network and increased load capacity in the decades following World War I.

**WHO was the designer?**

State Highway Administration

**WHO was the builder?**

State Highway Administration

**WHY was the bridge altered?**

This bridge has not been altered.

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

As part of an effort by the State to increase load capacity on secondary roads during the 1930's.

**SURVEYOR/HISTORIAN ANALYSIS:**

**This bridge may have National Register significance for its association with:**

- A - Events \_\_\_\_\_
- B- Person \_\_\_\_\_
- C- Engineering/architectural character \_\_\_\_\_

This bridge is located within the Port Deposit National Register Historic District; it does not add to or detract from the district.

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

Reinforced concrete slab bridges are a twentieth century structure type, easily adapted to the need for expedient engineering solutions. Reinforced concrete technology developed rapidly in the early twentieth century with early recognition of the potential for standardized design. The first U.S. attempt to standardize concrete design specifications came in 1903-04 with the formation of the Joint Committee on Concrete and Reinforced Concrete of the American Society of Civil Engineers.

Maryland's road and bridge improvement programs mirrored economic cycles. The first road improvement program of the State Roads Commission was a 7 year program, starting with the Commission's establishment in 1908 and ending in 1915. Due to World War I, the period from 1916 -1920 was one of relative inactivity; only roads of first priority were built. Truck traffic resulting from war-related factories and military installations generated new, heavy traffic unanticipated by the builders of the early road system. From 1920 to 1929, numerous highway improvements occurred in response to the increase in Maryland motor vehicles from 103,000 in 1920 to 320,000 in 1929, with emphasis on the secondary system of feeder roads which moved traffic from the primary roads built before World War I. After World War I, Maryland's bridge system also was appraised as too narrow and structurally inadequate for the increasing traffic, with plans for an expanded bridge program to be handled by the Bridge Division, set up in 1920. In 1920 under Chapter 508 of the Acts of 1920 the State issued a bond of \$3,000,000.00 for road construction; the primary purpose of these monies was to meet the state obligations involving the construction of rural post roads. The secondary purpose of these monies was to fund [with an equal sum from the counties] the building of lateral roads. The number of hard surfaced roads on the state system grew from 2000 in 1920 to 3200 in 1930. By 1930, Maryland's primary system had become inadequate to the huge freight trucks and volume of passenger cars in use, with major improvements occurring in the late 1930s. Most improvements to local roads waited until the years after World War II.

With a diverse topographical domain encompassing numerous small and large crossings, Maryland engineers quickly recognized the need for expedient design and construction.

In the early years, there was a need to replace the numerous single lane timber bridges. Walter Wilson Crosby, Chief Engineer stated in 1906, "The general plan has been to replace these [wood bridges] with pipe culverts or concrete bridges and thus forever do way with the further expense of the maintenance of expensive and dangerous wooden structures". Within a few years, readily constructed standardized bridges of concrete were being built throughout the state.

The creation of standard plans and a description of their use was first announced in the 1912-15 Reports of the State Roads Commission whereby bridges spanning up to 36 feet were to use standardized designs.

Published on a single sheet, the 1912 Standard Plans included those structures that were amenable to such an approach: slab spans, (deck) girder spans, box culverts, box bridges, abutments, and piers

(State Roads Commission 1912). Slab spans, with lengths of 6 to 16 feet in two foot increments, featured a solid parapet that was integrated into the slab, with a roadway of 22 feet.

In the Report for the years 1916-1919, a revision of the standard plans was noted:

During the four years covered by this report, it has been found necessary to revise our standard plans for culverts and bridges, to take care of the increased tonnage which they have been forced to carry. Army cantonments...increased their operations several hundred per cent, and the brunt of the enormous truck traffic resulting therefrom, was borne by the State Roads of Maryland. In addition to these war activities, freight motor lines from Baltimore to Washington, Philadelphia, New York, and various points throughout Maryland, and the weight of many of these trucks when loaded, was in excess of the loads for which our early bridges were designed (State Roads Commission 1920:56).

Published on separate sheets, the new standard plans (State Roads Commission 1919) for slab bridges reveal that the major changes was an increase in roadway width from 22 feet to 24 feet and a redesign of the reinforcement. The slab spans continued to feature solid parapets integrated into the span. The range of span lengths remained 6 to 16 feet, but the next year (1920) witnessed the issue of a supplemental plan for a 20 foot long slab span (State Roads Commission 1920).

The 1924 standard plans remained in effect until 1930, when the roadway width for all standard plan bridges was increased to 27 feet in order to accommodate the increasing demands of automobile and truck traffic (State Roads Commission 1930). The range of span lengths remained the same, but there were some changes designed to increase load bearing capacities. The reinforcing bars were increased in thickness. Visually, the 1930 design can be distinguished from its predecessors by the pierced concrete railing that was introduced at this time.

**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?**

County road docket shows that a road has existed at the site of Rock Run Mill since at least the late eighteenth century. Most of the buildings in the vicinity of the bridge are older than the bridge which suggests that this area was already substantially developed before the current bridge was built. The building of the current structure did not, therefore, have a significant effect 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?**

This bridge is located in a National Register Historic District.

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

No, it is an undistinguished example of standardized concrete slab bridge.

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

Yes, the character defining elements have retained their integrity.

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

No, this is an undistinguished bridge built from standardized State plans.

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

This bridge may warrant further study to determine whether it contributes to a potential historic district.

**BIBLIOGRAPHY:****County inspection/bridge files****SHA inspection/bridge files** **Other (list):**

Lake, Griffin, and Stevenson, 1877 Atlases and other Early Maps of the Eastern Shore of Maryland, Philadelphia, 1877.

Public Roads, Cecil County, Volume I., 1792-1844, p.13.

**SURVEYOR:****Date bridge recorded** 8/9/95**Name of surveyor** Daniel Moriarty**Organization/Address** P.A.C. Spero & Company, 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 CONCRETE SLAB  
 Map CONOWINGO, A-14  
 County CECIL  
 Bridge # and Name 7027  
US 222 OVER ROCK RUN

*CE-1407*



312

1040

1560 TO PERRYVILLE

1050 TO PORT DEPOSIT

405



CE-1467

CECIL COUNTY, MD

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~~MARYLAND SHPO~~ SHNA

BRIDGE NO 7027

LOOKING NORTH

1 OF 7



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~~MARYLAND SHPO~~ SITHA

BRIDGE NO 7077

LOOKING SOUTH

2 OF 7



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SHA

BRIDGE NO 7027

LOOKING UPSTREAM

3 OF 7



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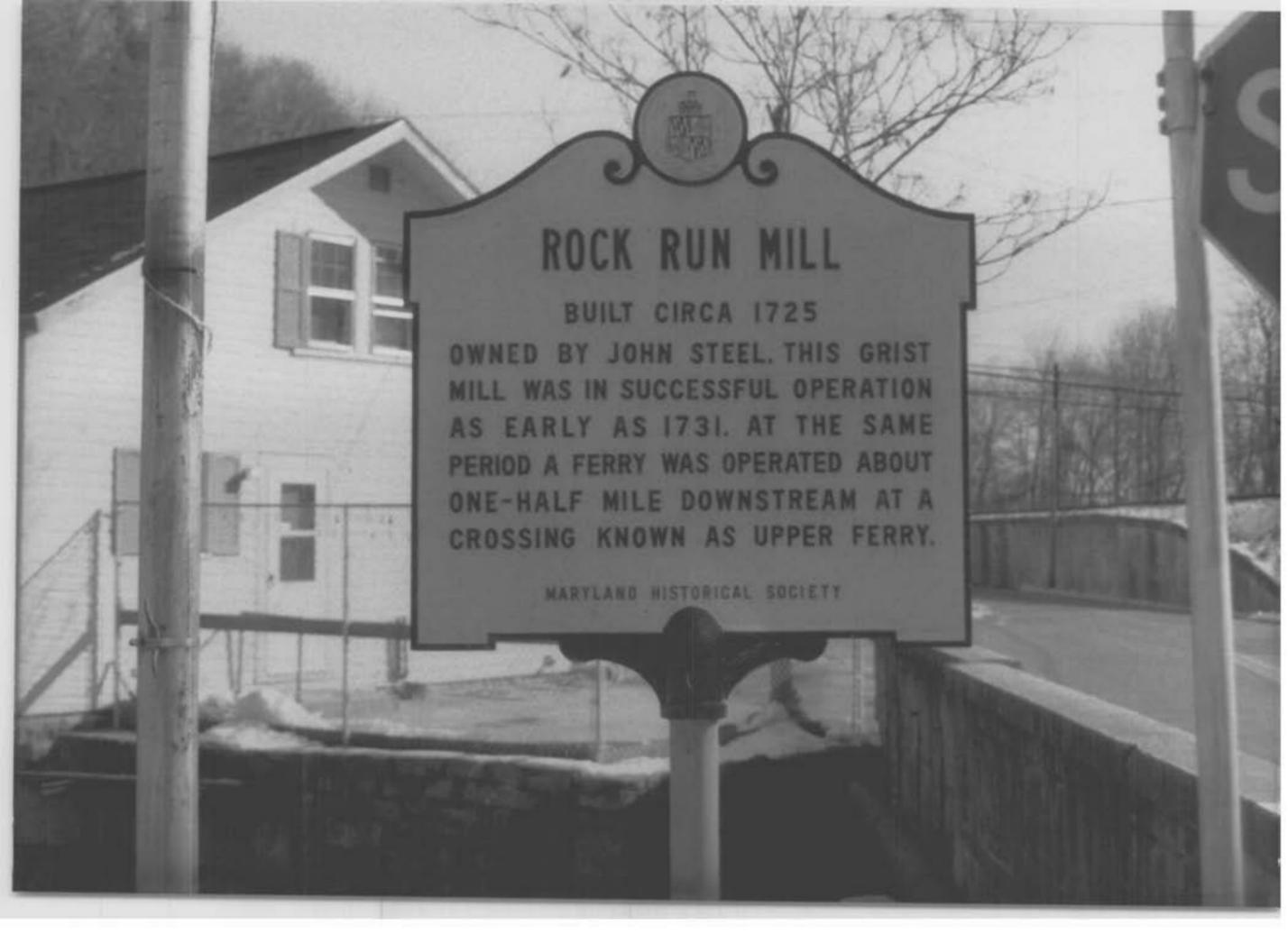
FEB 13 1995

~~MARYLAND SHPO~~ SITTA

BRIDGE NO 7077

UPSTREAM SIDE OF BRIDGE

H OF 7



ROCK RUN MILL

BUILT CIRCA 1725

OWNED BY JOHN STEEL. THIS GRIST  
MILL WAS IN SUCCESSFUL OPERATION  
AS EARLY AS 1731. AT THE SAME  
PERIOD A FERRY WAS OPERATED ABOUT  
ONE-HALF MILE DOWNSTREAM AT A  
CROSSING KNOWN AS UPPER FERRY.

MARYLAND HISTORICAL SOCIETY

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LECIL COUNTY, MD

MATT HURLEY

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BRIDGE NO 7027

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GRIST MILL, UPSTREAM OF BRIDGE

6 OF 7



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~~MARYLAND SHO~~ SIA

BRIDGE NO 7027

LOOKING DOWNSTREAM FROM BRIDGE

7 OF 7