Maryland Historical Trust

Maryland Inventory of Historic Properties number: Co-III-C-197

Name: Big Run Rd over Big 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.

MARYLAND HISTORICAL TRUST

Eligibility Recommended ___X____ Eligibility Not Recommended _____

Criteria: ____A ____B __X__C ____D Considerations: ___A ___B ___C ___D ___E ___F ___G ___None

Comments:_____

Reviewer, OPS:_Anne E. Bruder_____ Date:__3 April 2001____

Reviewer, NR Program:__Peter E. Kurtze_____ Date:__3 April 2001____

MARYLAND INVENTORY OF HISTORIC BRIDGES **MHT No.** G-III-C-197
HISTORIC BRIDGE INVENTORY
MARYLAND STATE HIGHWAY ADMINISTRATION/
MARYLAND HISTORICAL TRUST

SHA Bridge No. G042 **Bridge name** Big Run Road over Big Run

LOCATION:
Street/Road name and number [facility carried] Big Run Road

City/town New Germany **Vicinity** X

County Garrett

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 X **No** _____
National Register-listed district ____ **National Register-determined-eligible district** __
Locally-designated district X **Other** _____

Name of district Historic name: Bond; Common name: Big Run State Park

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 _____ **Retractile**_____ **Pontoon** _____

Metal Girder X:
Rolled Girder X **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** _____

G-III-C-197

DESCRIPTION:

Setting: Urban _____ **Small town** _____ **Rural** ___X___

Describe Setting:

Bridge No. G042 carries Big Run Road over Big Run in Garrett County. Big Run Road runs north-south and Big Run flows east-west. The bridge is located in the vicinity of New Germany, in the Savage River State Forest in Big Run State Park, and is surrounded by wooded mountains.

Describe Superstructure and Substructure:

Bridge No. G042 is a single-span, 1-lane, metal girder bridge. The bridge was originally built in 1935, and there have been no major alterations. The structure is 28 feet, 8 inches long and has a clear roadway width of 15 feet, 8 inches; there are no sidewalks. The out-to-out width is 17 feet, 2 inches. The superstructure consists of ten (10) rolled girders which support a wood plank deck and angle iron guardrails. The girders are 6¼"x18" and are spaced 1 feet, 9 inches apart. The girders have 1 inch steel cross-bracing reinforcement. The roadway is carried on the girders, and the wood plank deck consists of 2x6 lumber spaced approximately 1 inch apart, with wood nailers on the girders. The structure has angle iron guardrails secured to the web of the outside girders and the roadway approaches have no shoulders or guardrails. The substructure consists of stone masonry abutments and flared stone wing walls. The bridge is not posted, and the sufficiency rating is 43.1.

According to the 1995 inspection report, this structure was in fair condition; however, the girders have experienced large section loss. The timber deck is in good condition. The railings and joints have rust, the girders are severely rusted, and the bridge vibrates under loading. The bearings are in satisfactory condition, and the abutments and wing walls are in good condition.

Discuss Major Alterations:

There have been no major alterations to this bridge. Inspection reports from 1995 recommend cleaning and painting, posting the bridge for 50,000 lbs., and repairing the bridge as necessary.

HISTORY:

WHEN was the bridge built: 1935

This date is: Actual ___X___ **Estimated** _____

Source of date: Plaque ____ **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?

Unknown

WHO was the builder?

Unknown

WHY was the bridge altered?

N/A

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

Unknown

SURVEYOR/HISTORIAN ANALYSIS:

This bridge may have National Register significance for its association with:
A - Events _____ B- Person _____
C- Engineering/architectural character ____X____

The bridge is part of the previously surveyed Bond Historic District. Bond was a logging settlement inhabited circa 1900. The settlement became uninhabited by the 1930s and no physical evidence of the community remains. The site of Bond was also the location of a 1930s Civilian Conservation Corps (CCC) camp. Some ruins of cabin foundations from the camp remain in the park. The Bond Historic District was previously surveyed by Preservation Associates of Sharpsburg, Maryland in 1978. Bond was determined potentially significant as a district that represents differing land use and settlement patterns from the early twentieth century; however, no determination of eligibility has been conducted. Bond represents the importance of the logging industry in Garrett County during the late nineteenth and early twentieth centuries. The CCC camp is representative of many such camps that existed in western Maryland during the 1930s. The bridge contributes to the significance of the historic district, as it is a good example of a metal girder bridge that is unaltered and dates to the period of significance of the historic district, during the time the park was a CCC camp site. In addition, the bridge is eligible for the National Register of Historic Places under Criterion C, as a good example of metal girder construction. The structure has a high degree of integrity and retains such character-defining elements of the type as the original metal girders, abutments and wing walls, and railings. The bridge is a representative example of a 1930s metal girder bridge that has not been significantly altered.

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

Metal girder bridges were most likely introduced and first popularized in Maryland by the state's major railroads of the nineteenth century including the Baltimore and Susquehanna, its successor the Northern Central, and the Baltimore and Ohio Railroad. Bridge engineering historians have documented the fact that James Milholland (or Mulholland) erected the earliest plate girder span in the United States on the Baltimore and Susquehanna Railroad in 1846 at Bolton Station, near present-day Mount Royal Station. The sides (web) and bottom flange of Milholland's 54-foot-long span were wholly of wrought iron and included a top flange reinforced with a 12x12-inch timber. Plates employed in the bridge were 6 feet deep and 38 inches wide, giving the entire bridge a total weight of some 14 tons. Milholland's pioneering plate girder cost $2,200 (Tyrrell 1911:195). By December 31, 1861, the Northern Central Railroad, which succeeded the Baltimore and Susquehanna, maintained an operating inventory in Maryland of 50 or more bridges described simply as "girder" spans, in addition to a number of Howe trusses. Most of these were probably iron girder bridges; the longest were the 117-foot double-span bridge over Jones Falls and the 106-foot double-span girder bridge at Pierce's Mill (Gunnarson 1990:179-180).

As in the nation, girder bridge technology in Maryland was quickly adapted to cope with the increasingly heavy traffic demands of the twentieth century caused by automobile and truck traffic. The 1899 Maryland Geological Survey report on highways noted that "there are comparatively few

I-beam bridges, one of the cheapest and best forms for spans less than 25 or 30 feet" (Johnson 1899:206). Interestingly, the report also urged construction of a composite metal, brick, and concrete bridge, noting that "no method of construction is more durable than the combination of masonry and I-beams, between which are transverse arches of brick, the whole covered with concrete, over which is laid the roadway" (Johnson 1899:206). Whether any such bridges (transitional structures between I-beams and reinforced concrete spans) were built is unknown.

Official state and county highway reports—issued between 1900 and the early 1920s through the Highway Division of the Maryland Geological Survey and its successor, the State Roads Commission—generally do not reference or describe girder construction. An analysis of the current statewide listing of county and municipal bridges (a listing maintained by the State Highway Administration) reveals that 48 county bridges, out of the total of 141 approximately dated to "1900" by county engineers, were listed as steel girder, steel stringer, or variants of such terms. (It should be noted that the "1900" date is often given when no exact date is pinpointed for a bridge that is clearly old). A grand total of 200 bridges (including "steel culverts"), out of 550 bridges dated on the county list between 1901 and 1930, were described as steel beam, steel girder, or steel stringer and girder varieties. The total suggests that among the various highway bridge types built in the early twentieth century metal girder bridges in Maryland between 1900 and 1930 were second in popularity only to reinforced concrete bridges. However, these numbers must be interpreted with caution, as they do not necessarily include all county and municipal bridges.

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?

This bridge is located within the Bond Historic District, which is listed on the Maryland Historic Sites Inventory. Bond was a logging settlement inhabited circa 1900. The settlement became uninhabited by the 1930s and no physical evidence of the community remains. The site of Bond was also the location of a 1930s Civilian Conservation Corps (CCC) camp. Some ruins of cabin foundations from the camp remain in the park. The bridge contributes to the significance of the historic district, as it is a good example of a metal girder bridge that is unaltered and dates to the period of significance of the historic district, during the time the park was a CCC camp site. The stone masonry substructure and simple railing are representative of small, simple span park bridges of the 1930s.

Is the bridge a significant example of its type?

The bridge is a potentially significant example of a metal girder bridge, possessing a high degree of integrity.

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

The bridge retains the character-defining elements of its type, as defined by the Statewide Historic Bridge Context, including the original metal girders, abutments and wing walls, and railings.

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

This 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?

The Bond Historic District requires determination of National Register eligibility. Further study of this bridge may be useful to determine its relationship to the Civilian Conservation Corps activities that occurred at the site in the 1930s.

BIBLIOGRAPHY:

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

Gunnarson, Robert
1990 *The Story of the Northern Central Railway, From Baltimore to Lake Ontario.* Greenberg Publishing Co., Sykesville, Maryland.

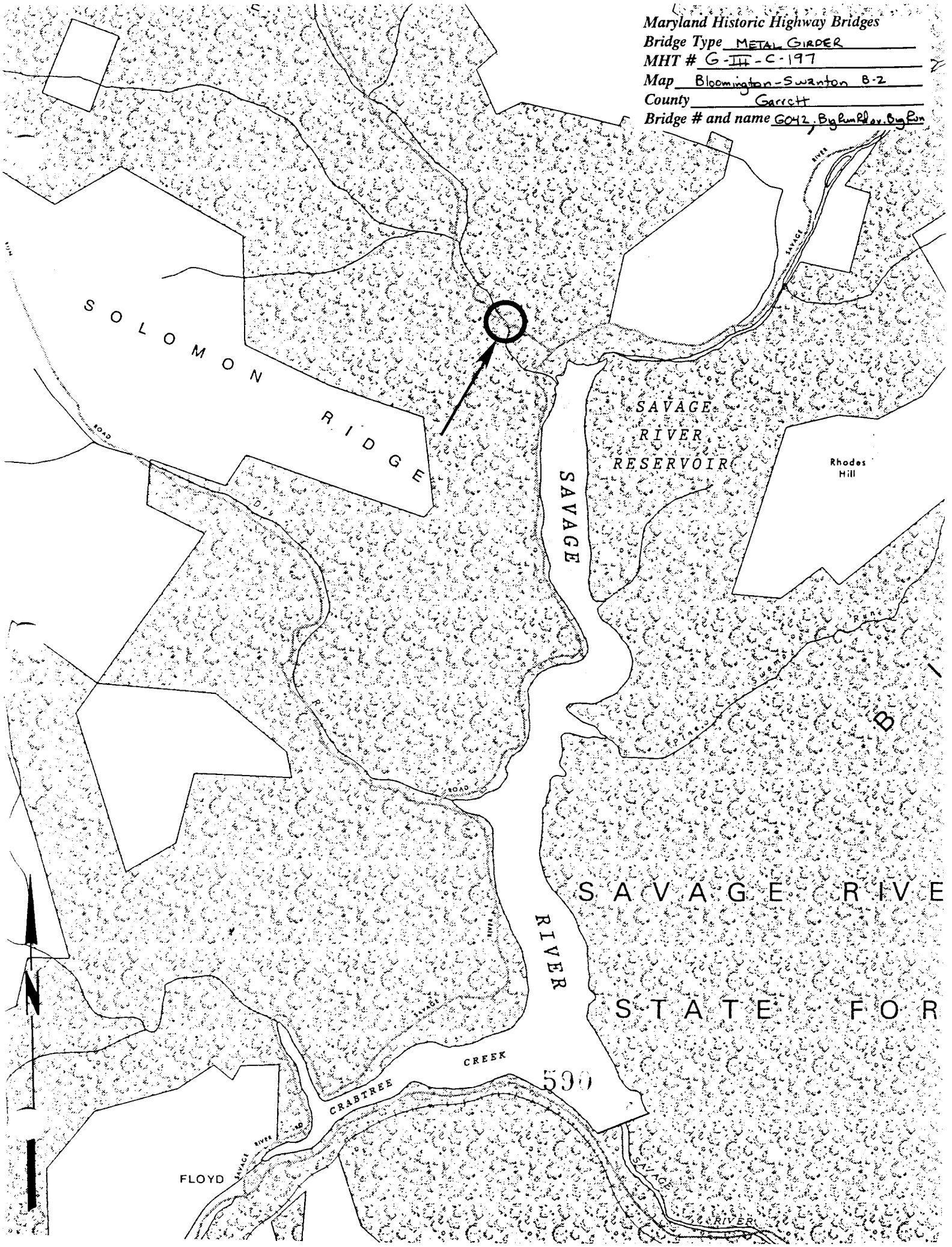
Johnson, Arthur Newhall
1899 The Present Condition of Maryland Highways. In *Report on the Highways of Maryland.* Maryland Geological Survey, The Johns Hopkins University Press, Baltimore.

Tyrrell, Henry G.
1911 *History of Bridge Engineering.* Published by author, Chicago.

SURVEYOR:

Date bridge recorded 3/3/97
Name of surveyor Caroline Hall/Ryan McKay
Organization/Address P.A.C. Spero & Co., 40 W. Chesapeake Avenue, Baltimore, MD 21204
Phone number (410) 296-1685 **FAX number** (410) 296-1670

Maryland Historic Highway Bridges
Bridge Type METAL GIRDER
MHT # G-III-C-197
Map Bloomington-Swanton B-2
County Garrett
Bridge # and name G042, Big Run Rd. Big Run



1 [illegible]

2 Big Run Rd over Big Run

3 Garrett Co, MD

4 Ryan McKay

5 3/47

6 MD SHPO

7 East Approach

8 1 of 5

1 G-IT C 197

2 - Big Run Rd over Big Run

3 Garrett Co, MD

4 Ryan McKay

5 3/97

6 MD SHPD

7 Downstream elevation

8. 2 of 5

1 B.I. 8 197

2 Big Run Rd over Big Run

3 Garrett Co, MD

4 Ryan McKay

5 3/97

6 MD SHPO

7 Upstream elevation

8 ?

1 [illegible]

2 Big Run Rd over Big Run

3 Garrett Co, MD

4 Ryan McKay

5 2/97

6 MD SHPO

7 Detail of girder

8 4 of 5

1 [illegible] C 197

2 [illegible]

3 Garrett Co. MD

4 Ryan McKay

5 3/47

6 MD SHPO

7 Detail of west abutment

8 5 of 5