Maryland Historical Trust

Maryland Inventory of Historic Properties Number: CH-495

Name: MD 60 over Wards 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 bridged received the following determination of eligibly.

MARYLAND HISTORICAL TRUST

Eligibility Recommended ___X____ Eligibility Not Recommended _____

Criteria: ____A ____B ____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 Properties
Historic Bridge Inventory
Maryland State Highway Administration
Maryland Historical Trust

MHT Number CH-495

SHA Bridge No. 8013 **Name:** MD 6 over Wards Run

Location:
Street/Road Name and Number: MD 6 (Port Tobacco Road)

City/Town: Welcome **Vicinity** X

County: Charles

Ownership: X State County Municipal Other

This bridge projects over: Road Railway X Water Land

Is the bridge located within a designated district: yes X no

NR listed district NR determined eligible district
locally designated other
Name of District

Bridge Type:

Timber Bridge
Beam Bridge Truss-Covered Trestle
Timber-and-Concrete

Stone Arch

Metal Truss

Movable Bridge
Swing Bascule Single Leaf Bascule Multiple Leaf
Vertical Lift Retractile Pontoon

Metal Girder
Rolled Girder Rolled Girder Concrete Encased
Plate Girder Plate Girder Concrete Encased

Metal Suspension

Metal Arch

Metal Cantilever

X Concrete
X Concrete Arch Concrete Slab Concrete Beam Rigid Frame

Other Type Name_____

Describe Setting:

Bridge 8013 carries MD 6 over Wards Run in Charles County. MD 6 runs east-west over the northern flowing Wards Run. The area surrounding the bridge is lightly developed, and is mostly forest and marshland.

Describe Superstructure and Substructure:

Bridge 8013 is a single span filled spandrel concrete arch bridge. The length of the bridge is 89 feet with a clear span of 60 feet 5 inches. The bridge has a rise of approximately 13 feet 2 inches from springline to the crown. The spandrel walls are approximately 10 feet high and 6 wide. There is a clear roadway width of 24 feet, with an overall width of 27 feet. The southeast wingwall has 3 tierods each 15 inches long attached to the bridge. The northeast wingwall had shifted as much as 8 inches. The tierods were added on the southeast side of the wall to prevent further shifting. The arch ring has efflorescence and spalling especially around the intrados. There is reinforcement bar exposure around the arch ring. According to a 1996 inspection report, the bridge is in satisfactory condition, with a sufficiency rating of 77.3.

The parapets are original. The builders used an open parapet design. The reinforced-concrete railing consists of vertical posts securely fastened by dowels to the structure, horizontal rails and solid panels that fill the space between the posts and the railing. The panels may be precast, and the posts and rails built in place. The open parapet design is a variation of the solid panel railing. The precast panels are provided with openings and closed panels separate the expansion joints. Maryland began using this design after 1928.

The parapets are 87 feet across on both the eastern and western sides of the bridge. The parapets are separated into 7 sections. The second, third, fourth, fifth, and sixth sections from the northern and southern approaches are approximately 11 feet long and 3 feet high. The parapet is an open paneled design. Each section has 12 open balusters that are poured into the deck. The first and seventh sections are approximately 13 feet 10 inches long and 3 feet high. These end sections are closed panel. The end sections have a 1-inch incised panel. Each incised panel is 11 feet long and 1 foot high. Each section is separated by a felt joint that measures ¼ inch. All of the parapets are topped with a concrete cap measuring approximately 4 inches by 6 inches. The parapets have minor scaling and spalling with some aggregate loss. The parapets on the east end retaining walls are up to 1 foot out of alignment. However, there are not any signs of recent movement. The west parapets on the retaining walls are 3 to 4 inches out of alignment with no signs of recent movement. The parapets have horizontal, vertical, and map cracks, minor spalls, and popouts.

Discuss Major Alterations:

There has been moderate patching across the entire bridge. Tierods were added in 1986 to prevent the eastern walls from shifting further.

When Built? 1929
Why Built? To replace an earlier structure
Who Built? Unknown
Who Designed? State Roads Commission
Why Altered? Prevent retaining walls from further shifting.
Was this bridge built as part of an organized bridge building campaign?
No, this bridge was not built during an organized bridge building campaign.

Surveyor Analysis:
This bridge may have NR significance for association with:
_X_A Events _Person
_X_C Engineering/Architectural

This bridge was determined eligible by the Interagency Review Committee in February 1996.

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

This bridge was built on the LaPlata-Riverside Road (Port Tobacco Road). This road connected the eastern farmers of Charles County with the central trading routes and the county seat in La Plata. In 1928, when the design for this structure began, the State Roads Commission was working on other structures within Charles County in order to improve lateral post roads within the counties. The State roads Commission redesigned the road and removed the exiting structure.

The new bridge was built using funds from the *"Special Bridge Fund"*. This fund allowed the state to issue bonds for the purpose of constructing new bridges where needed. The proceeds of the bond issue were credited to the accounts of the State Roads Commission, with 80% going directly to Commission sponsored projects and 20% going to the City of Baltimore. This bridge was built to improve a connector road between the county seat and the surrounding county.

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?

The preexisting structure was probably built during the first decade of the twentieth century. The realignment of the road eliminated a dangerous alignment along this route. Charles County remained relatively rural and agrarian in nature until the late twentieth century. The building of this bridge assisted the local communities but did not have a great impact on the surrounding economy.

Is the bridge located in an area that may be eligible for historic designation and would the bridge add to or detract from historic and visual character of the possible district?

No, this bridge is not located in an are eligible for historic designation.

Is the bridge a significant example of its type?

Yes this bridge is a significant example of a single span concrete arch built during the 1910 to 1940 key period of significance. During this period reinforced concrete structures were characterized by increasing standardization of small slab, beam, frame, and culvert spans. Special subtypes of reinforced concrete bridges, such as the Luten arch, open spandrel ribbed arch, the rigid frame bridge and concrete girders were introduced and built as grade crossing elimination structures.

The as-built plans for bridge 8013 stated the bridge should be built to State Roads Commission Specifications, dated February 5, 1929. It is important to note that the State Roads Commission during this time did not have specific plans for the every standard arch. However, the engineers did have design specifications for the concrete, the reinforcement bars, the parapets, and the expansion joints. It was the responsibility of the engineer to determine the load and traffic conditions along with the environmental confines and design a standard arch bridge.

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

Yes this bridge retains integrity of its character defining elements. Although some repairs were made to the wingwalls, the spandrel walls, the parapets, and the abutments, all are original and have only moderate deterioration.

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

Yes, this bridge is a significant example of the State Roads Commission's efforts from 1910 until 1945 to eliminate dangerous geometric alignments. The development of standardized plans helped to facilitate this process.

CH-495

Should this bridge be given further study before significance analysis is made and why?

No, this bridge should not be given further study.

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

Surveyor:
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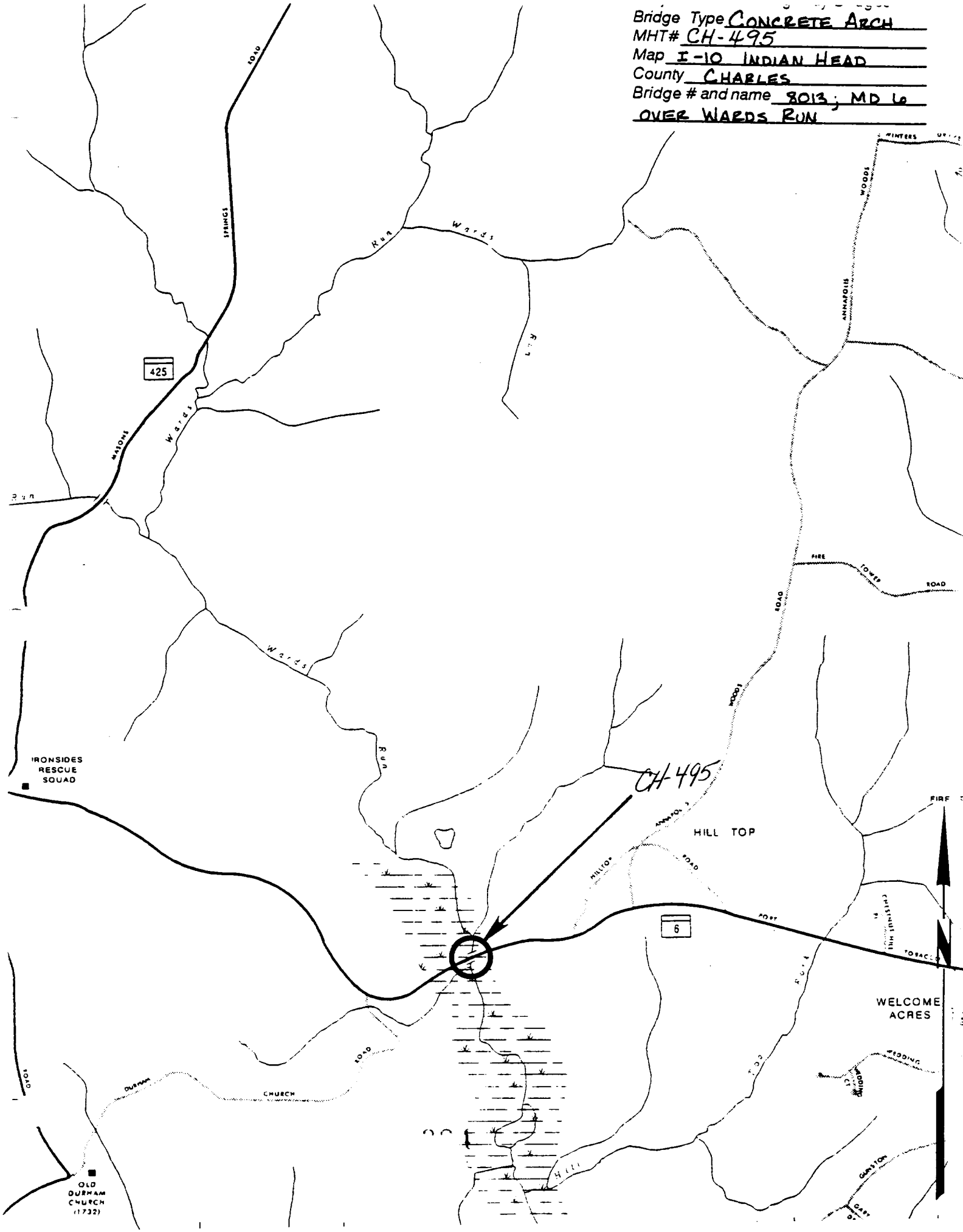
Edited by P.A.C. Spero & Company, December 1997

Bridge Type CONCRETE ARCH
MHT# CH-495
Map I-10 INDIAN HEAD
County CHARLES
Bridge # and name 8013; MD 6
OVER WARDS RUN



CH-495
BRIDGE # 8013
CHARLES COUNTY

D. BHAUMIK
2-2-95

MARYLAND SHPO SHA
MD 6 OVER WARDS RUN
LOOKING EAST ON MD 6

CH-495

BRIDGE # 8013
CHARLES COUNTY

D. BHAUMIK
2-2-95

MARYLAND SHPO SHA

MD 6 OVER WARDS RUN

LOOKING NORTH (DOWNSTREAM FACE)

CH-425

BRIDGE # 8013

CHARLES COUNTY

D. BHOUMIK

2-2-95

MARYLAND SHPO SHA

MD 6 OVER WARDS RUN.

LOOKING WEST ON MD 6

CH-495
BRIDGE # 8013
CHARLES COUNTY

D. BHAUMIK

2-2-95
~~MARYLAND SHPO~~ SHA
MDG OVER WARDS RUN
LOOKING SOUTH (UPSTREAM FACE)

CH-495
BRIDGE # 8013
CHARLES COUNTY
D. BRAUNIG
2-2-95
~~MARYLAND SHPO~~ SHT
MD 6 OVER WARDS RUN
REPAIR OF SOUTHEAST WING WALL