

Maryland Historical Trust

Maryland Inventory of Historic Properties number: HO-728

Name: US 1 over Deep 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 _____	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 Properties
Historic Bridge Inventory
Maryland State Highway Administration
Maryland Historical Trust

MHT Number HO-728

SHA Bridge No. 13003 **Name:** US 1 over Deep Run

Location:

Street/Road Name and Number: US 1 (Baltimore-Washington Boulevard)

City/Town: Savage **Vicinity** X

County: Howard

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 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:****Describe Setting:**

Bridge 13003 carries southbound US 1 over Deep Run in Howard County. US Route 1 runs north-south over the eastern flowing Deep Run. US Route 1 is heavily developed in this area. There is moderate residential development to the north of the bridge. In addition there are single story commercial shopping centers surrounding the bridge.

Describe Superstructure and Substructure:

Bridge 13003 is a single span filled spandrel concrete arch bridge. The length of the bridge is 26 feet long and it has a clear span of 22 feet. The rise is approximately 9 feet from the springline. The rise to run ratio is 41 percent. The abutments are concrete and are approximately 40 feet wide and 16 feet high. The northern downstream and upstream wingwalls are 8 feet wide by 20 feet long and 6 feet wide by 16 feet long respectively. The southern downstream and upstream wingwalls are 9 feet wide by 22 feet long and 6 feet wide by 16 feet long respectively. There is a clear roadway width of 66 feet with an overall bridge width of 68 feet. The spandrel has a 1-inch angle strip and a 2-inch cove molding around the intrados. Bridge 13003 has modern guardrails. The rails are precast concrete topped with steel posts and w-beams. The railing is 26 feet long with 4 steel 3-foot posts. According to a 1997 inspection report, the bridge is in satisfactory condition with a sufficiency rating of 78.9.

The arch has minor spalling and delamination along the construction joints and random hairline longitudinal and irregular cracks. The abutments have 2 sections that were widened in 1954. These sections have light erosion on the exposed footings with the eastern footing of the northern abutment exhibiting a 4-foot spall. The wingwalls have numerous fine vertical and irregular cracks. The southwest wingwall also has a small popout with rusted reinforcement bars exposed at the spandrel wall joint. The spandrel walls have fine horizontal and irregular cracks with some light rust staining around the cracks. The bridge rail is built to 1954 standards and is in good condition.

Discuss Major Alterations:

In 1954 the bridge was widened 16 feet on either side. The existing 24-foot arch was not replaced completely. The deck of the 1929 arch was removed to the fill and the parapets were removed. The engineers attached frames and poured 2 new sections to the arch.

History:**When Built:** 1929, 1954**Why Built:** Elimination of a dangerous one lane bridge along Baltimore-Washington Blvd.**Who Built:** State Roads Commission**Who Designed:** State Roads Commission**Why Altered:** Safety concerns.**Was this bridge built as part of an organized bridge building campaign?** Yes, this bridge was part of the road construction of US 1 between Baltimore and Washington.**Surveyor Analysis:****This bridge may have NR significance for association with:**

- A Events Person
 C Engineering/Architectural

This bridge was determined not eligible by the Interagency Review Committee in March 1996.

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

Yes, this bridge was built as part of the construction of US 1 between Baltimore and Washington. Historically the route between Baltimore and Washington dates back 200 years. Originally the road was a dirt road built under the 1704 Act requiring 24-foot cart paths. The first section was constructed in 1741 connecting Baltimore and Elkridge, and in 1749 the road was continued to Georgetown. Substandard maintenance continued throughout the eighteenth century. According to many period accounts, the State of Maryland did not maintain the road. Three successive turnpike companies attempted to construct a road during the turnpike movement of the late-eighteenth and early-nineteenth centuries. Companies were incorporated in 1796, 1812, and 1820 to build a road. Only the company of 1820 succeeded in constructing a turnpike on a 60-foot right-of-way between Baltimore and Washington. The company was liquidated in 1865 after the turnpike was condemned by the State.

In 1906 the Maryland Legislature, bowing to public pressure, decided to rebuild the highway as a state project and call it State Road No. 1. This road suffered during World War I under the weight of the increased numbers of army vehicles. Their increased load carrying capacity and sheer number tore the road apart. Between 1918 and 1919 the road was rebuilt as a concrete road with a 20-foot clearance. Sometime between 1920 and 1923 a dangerous one way structure was removed over the Little Patuxent River at Savage in

Howard County and was replaced with a concrete arch with solid 3-foot high paneled parapets.

In 1925 State Route 1 became part of US 1, the "main street" of the East Coast from Fort Kent, Maine to Key West, Florida. From 1928 to 1930 the roadway was doubled in width to 40 feet and resurfaced. This meant extending or replacing all the bridges. In 1929, the bridge was built to carry US Route 1 over Deep Run.

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 area that is eligible for historic designation. Portions of US 1 could be nominated as a linear district.

Is the bridge a significant example of its type?

No, this bridge is not a significant example of type. The interior arch was built in 1929; the exterior portions of the arch were added in 1954, but there was not a significant change in engineering design between those two periods. The widening was done in order to increase the traffic load of the bridge, and it was completed in a sensitive manner. The cove molding was replaced on the exterior of the new arch sections. Because the bridge was widened in 1954 and the original parapets were replaced, it is not a significant example of the concrete arches built and rehabilitated by the State Roads Commission during the construction of US 1 between 1920 and 1930.

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

No, this bridge does not retain the integrity of its character defining features due to the widening in 1954.

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

No, this bridge is not a significant example of the work of the State Roads Commission, due to the later widening.

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):**

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.

P.A.C. Spero & Company and Louis Berger & Associates

1995 Historic Highway Bridges in Maryland: 1631-1960: Historic Context Report. Maryland State Highway Administration, Maryland State Department of Transportation, Baltimore, Maryland.

State Roads Commission

1908-1930 *Annual Report of the State Roads Commission of Maryland*. State Roads Commission of Maryland, Baltimore, Maryland.

State Roads Commission

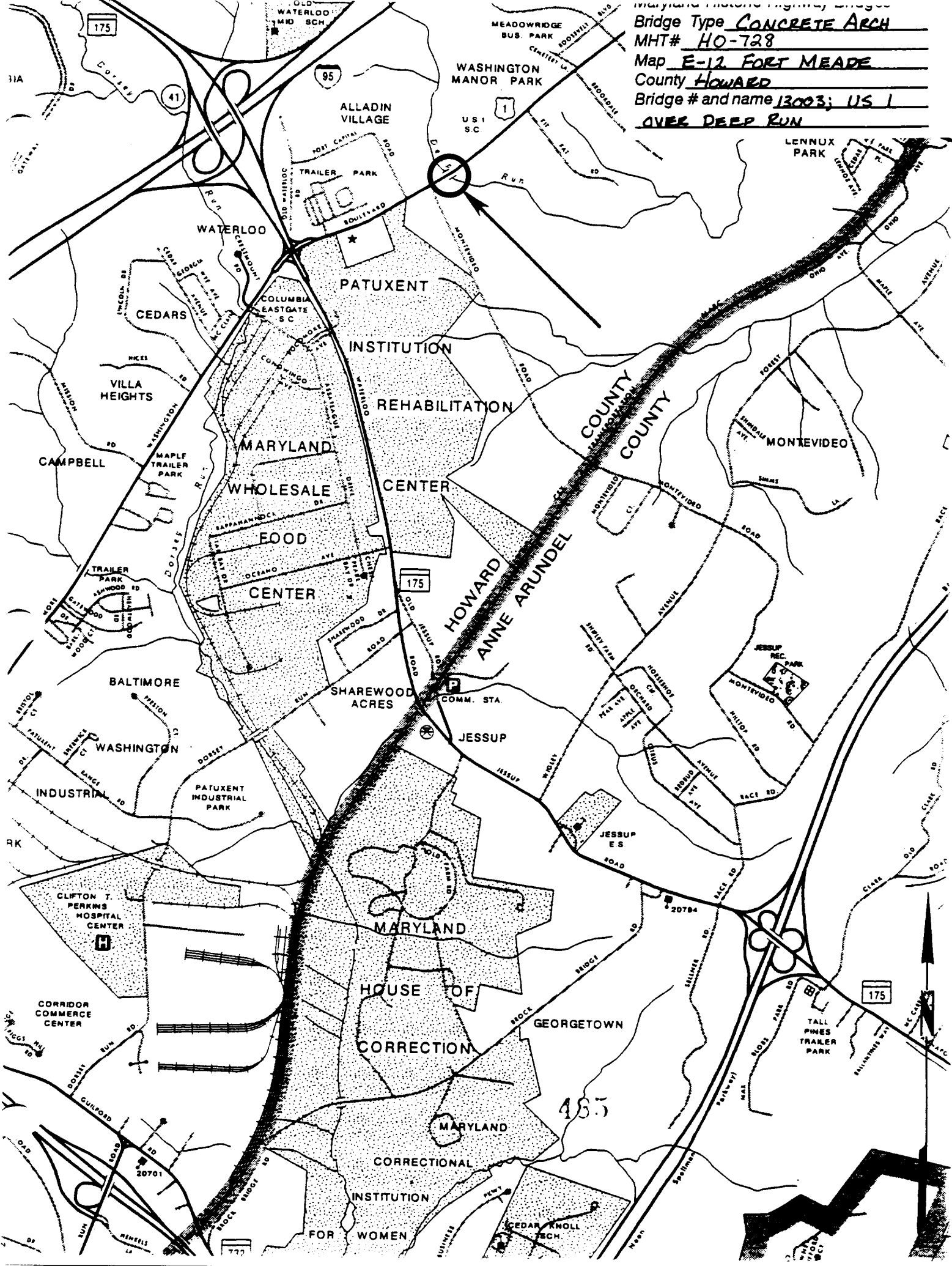
1958 *A History of Road Building in Maryland*. State Roads Commission of Maryland, Baltimore, Maryland.

Tyrrell, H. Grattan

1909 *Concrete Bridges and Culverts for Both Railroads and Highways*. The Myron C. Clark Publishing Company, Chicago and New York.**Surveyor:****Date bridge recorded** December 1997 **Name of surveyor** Wallace, Montgomery & Associates / P.A.C. Spero & Company **Organization/Address** P.A.C. Spero & Co., 40 W. Chesapeake Avenue, Suite 412,
 Baltimore, MD 21204 **Phone number** (410) 296-1635 **FAX number** (410) 296-1670

Revised by P.A.C. Spero & Company, July 1998.

Bridge Type CONCRETE ARCH
MHT# HO-728
Map E-12 FORT MEADE
County HOWARD
Bridge # and name 13003; US 1
OVER DEEP RUN



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1. HO-728
2. U.S. 1 over Deep Run
3. Howard Co, MD
4. Wallace, Montgomery & Assoc.
5. 12/97
6. MD SHPO
7. Elevation looking upstream
8. 1 of 4



1. HO-728
2. U.S. 1 over Deep Run
3. Howard Co., MD
4. Wallace, Montgomery & Assoc,
5. 12/97
6. MD SHPO
7. Elevation looking downstream
8. 2 of 4



1. HO-728
2. U.S. 1 over Deep Run
3. Howard Co., MD
4. Wallace, Montgomery & Assoc.
5. 12/97
6. MD SHPO
7. Looking North
8. 3 of 4



1. H0-728
2. U.S. 1 over Deep Run
3. Howard Co., MD
4. Wallace, Montgomery & Assoc.
5. 12/97
6. MD SHPO
7. Looking South
8. 4 of 4