

Maryland Historical Trust

Maryland Inventory of Historic Properties Number: K-602

Name: MD 299 over Herring Branch of Sassafras River

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.

<b>MARYLAND HISTORICAL TRUST</b>	
Eligibility Recommended <input checked="" type="checkbox"/> X	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>

Maryland Inventory of Historic Properties  
Historic Bridge Inventory  
Maryland State Highway Administration  
Maryland Historical Trust

MHT Number K-682

**SHA Bridge No.** 14017 **Name:** MD 299 over Herring Branch of Sassafras River

**Location:**

**Street/Road Name and Number:** MD 299 (Sassafras Road)

**City/Town:** Sassafras **Vicinity** \_\_\_\_\_ X \_\_\_\_\_

**County:** Kent

**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

X Concrete

X Concrete Arch \_\_\_\_\_ Concrete Slab \_\_\_\_\_ Concrete Beam

\_\_\_\_\_ Rigid Frame

\_\_\_\_\_ Other Type Name \_\_\_\_\_

**Describe Setting:**

Bridge 14017 carries MD 299 over the Herring Branch of the Sassafras River in Kent County. MD 299 runs north-south over the eastern flowing Herring Branch of the Sassafras River. The area immediately adjacent to the bridge has light residential development.

**Describe Superstructure and Substructure:**

Bridge 14017 is a single-span filled spandrel concrete arch bridge. The length of the bridge is 33 feet with a clear span of 31 feet. The bridge has a rise of 4 feet 3 inches from the springline to the crown. The spandrel walls are approximately 4 feet high and 15 feet wide. The wingwalls are 10 feet by 6 feet. There is a clear roadway width of 20 feet 6 inches, with an overall bridge width of 22 feet 6 inches. According to a 1997 inspection report, the bridge is in satisfactory condition with a sufficiency rating of 78.9.

The arch has full-length longitudinal cracks, some which exhibit moisture and light efflorescence. There are a few small popouts. The west beam at mid-span has a spall that measures 8 inches wide, 15 inches long and a 1/2-inch deep. The arch has exposed reinforcement bars with sectional loss. In addition there is heavy scaling and rust on the exposed reinforcement bars.

The abutments have light to moderate erosion along the flow areas. The northern abutment is slightly worse than the southern abutment. The wingwalls have minor erosion from stream flow. There are light vertical cracks at the wing and abutment joints with light efflorescence.

The parapets are original. The builders used a closed parapet design that consists of panels securely fastened by dowels to the structure. The parapets are 30 feet across both the eastern and western sides of the bridge. Each panel has 4 incised panels measuring 1 foot 5 inches. The parapets have fine vertical and map cracking. The exterior faces have small popouts from the guardrail placement. The heaviest cracking is found on the northeast corner with some efflorescence.

**Discuss Major Alterations:**

There has been minor patching on the exterior and interior of the parapet and the placement of riprap in 1992 to 1993. These remedial actions are present but are not documented in the files. The bridge was reconstructed in 1932.

**When Built?** 1913, 1932

**Why Built?** Unknown

**Who Built?** Luten Bridge Company

**Who Designed?** Luten Bridge Company

**Why Altered?** To insure the structural integrity of the bridge.

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

No, this bridge was not built as part of an organized bridge building campaign.

**Surveyor Analysis:**

**This bridge may have NR significance for association with:**

A Events       Person

C Engineering/Architectural

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

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

The State Aid Law passed in 1904, was carried on by the Maryland Geological Survey until June, 1910, when it was transferred to the State Roads Commission (SRC). Under the provisions of this Act, 50% of the cost of

the road and the construction of its supporting bridges was borne by the State, 40% by the County Commissioners, and 10% by adjacent property owners. Surveys, plans and specifications were prepared by the SRC, the work was advertised by the County Commissioners of the respective counties, and the actual construction work was done under the supervision of the State. After its completion, the bridge was turned over to the county for maintenance. Kent County did not apply for State Aid funds until 1912. Usage of this law allowed many county roads to be improved, which then were connected with the State Road System. This bridge was built by the State Roads Commission and maintained by Kent County.

The Luten Bridge Company of York, PA., was incorporated in 1909 as a contracting concern specializing in the designs of Daniel Luten. It grew to be the largest of Luten's loosely affiliated corporations and operated offices in Clarksburg, WV; Concord, NH; Columbus, OH; Chatsworth GA; and Syracuse, NY. Daniel Luten specialized in the reinforced concrete bridges. His designs dominated the concrete bridge industry, and were copied (under patent protection) and used throughout the eastern United States.

**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.

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

Yes this bridge is a significant example of its type. This bridge represents a good example of a bridge designed by the Luten Bridge Company of York, PA . In addition, there have been no changes to the character defining elements of the 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. The arch ribs, spandrel walls, abutments, wingwalls, and parapets are original and intact.

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

Yes, this is a significant example of the work of the Luten Bridge Company of York, Pennsylvania.

**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

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

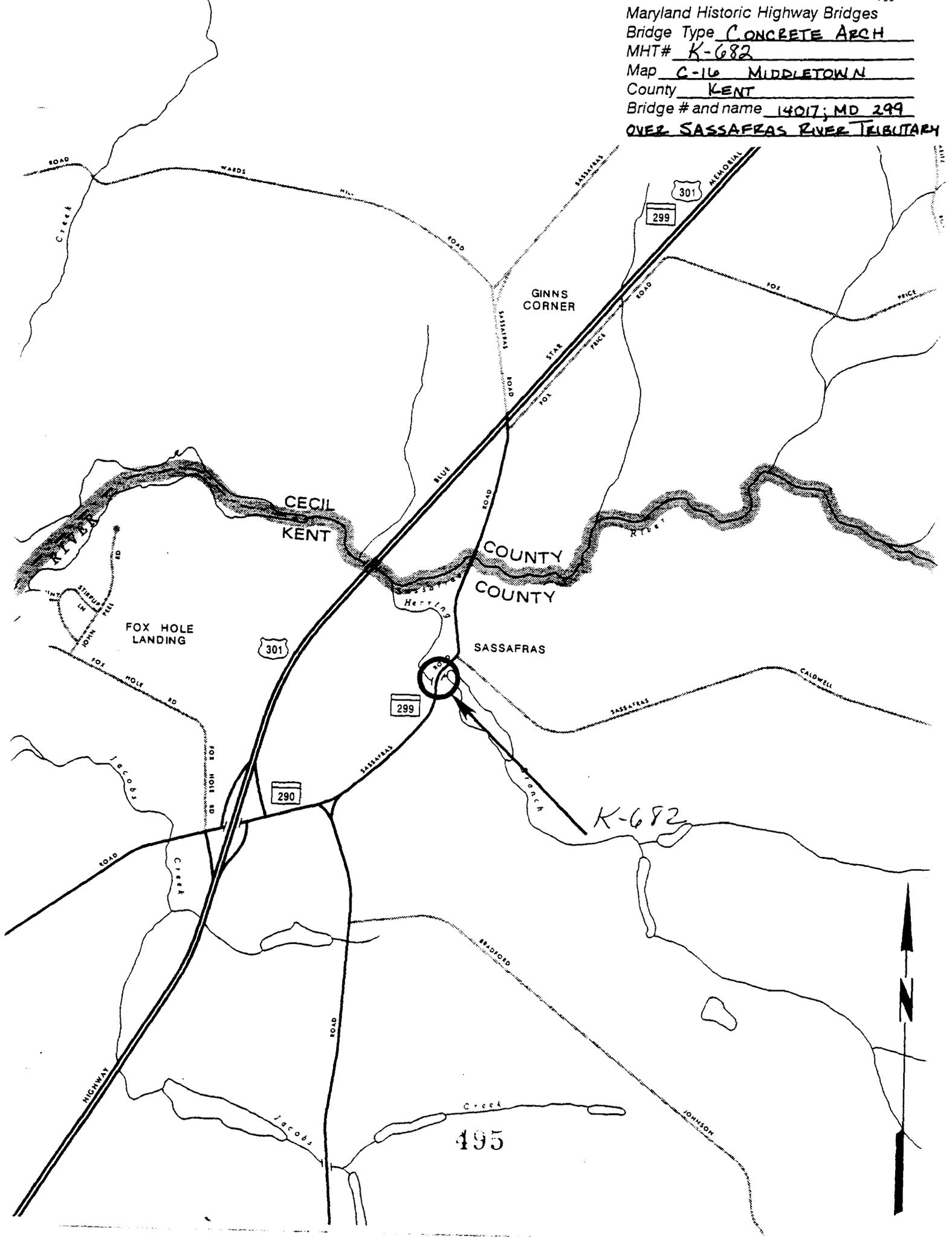
K-692

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, Baltimore, MD 21204  
**Phone number** (410) 296-1635 **FAX number** (410) 296-1670

Maryland Historic Highway Bridges  
Bridge Type CONCRETE ARCH  
MHT# K-682  
Map C-16 MIDDLETOWN  
County KENT  
Bridge # and name 14017; MD 299  
OVER SASSAFRAS RIVER TRIBUTARY



A black and white photograph showing a close-up of a bridge railing. The railing is made of a heavy, cylindrical metal pipe with several U-bolts and nuts securing it to a concrete base. The concrete base has a rectangular stamp containing the text: 1913.  
LUTEN BRIDGE CO.  
YORK, PA.  
The background shows a line of bare trees, suggesting a winter or late autumn setting. The ground in the foreground is cracked and appears to be asphalt or concrete.

1913.  
LUTEN BRIDGE CO.  
YORK, PA.

1. K-682
2. HOIT, MD 299 OVER SASSAFRAS RIVER
3. KENT COUNTY, MD
4. WALLACE - MONTGOMERY
5. 12/97
6. MD SHPO
7. PLAQUE
8. 10FS



1. K-682
2. 14017, MD 299 OVER SASSAFRAS RIVER BRANCH
3. KENT COUNTY
4. WALLACE, MONTGOMERY & ASSOC.
5. 12/97
6. MD SHPO
7. LOOKING SOUTH
8. 2 OF 5



1. K-682
2. 14017, MD 299 OVER SASSAFRAS RIVER BRANCH
3. KENT COUNTY
4. WALLACE, MONTGOMERY & ASSOC,
5. 12/97
6. MD SHPO
7. LOOKING NORTH
8. 3 OF 5



1. K-682
2. 14017, MD 299 OVER SASSAFRAS RIVER BRANCH
3. KENT COUNTY
4. WALLACE, MONTGOMERY & ASSOC,
5. 12/97
6. MD SHPO
7. ELEVATION LOOKING UPSTREAM
8. 4 OF 5



1. K-682
2. 14017, MD 299 OVER SASAFRAS RIVER BRANCH
3. KENT COUNTY
4. WALLACE, MONTGOMERY & ASSOC.
5. 12/97
6. MD SHPO
7. ELEVATION LOOKING DOWNSTREAM
8. 5 OF 5