Maryland Historical Trust

Maryland Inventory of Historic Properties number: AL-II-A-147

Name: Town Creek Rd No. 3 Over Town Creek

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 ____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.** AL-II-A-147
HISTORIC BRIDGE INVENTORY
MARYLAND STATE HIGHWAY ADMINISTRATION/
MARYLAND HISTORICAL TRUST

SHA Bridge No. A-113 **Bridge name** Town Creek Road No. 3 over Town Creek

LOCATION:
Street/Road name and number [facility carried] Town Creek Road

City/town Flintstone **Vicinity** X

County Allegany

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

Name of 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 _____ **Retractile**_____ **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 X **Concrete Slab**_____ **Concrete Beam** ____ **Rigid Frame** _____
Other _____ **Type Name** _____

DESCRIPTION:

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

Describe Setting:

Bridge A113 carries Town Creek Road over Town Creek in Allegany County. Town Creek Road runs north-south and Town Creek flows northwest to southeast. The bridge is located in the vicinity of Flintstone.

Describe Superstructure and Substructure:

Bridge A113 is a 2-span, 1-lane, filled concrete arch bridge. The bridge was built in 1919, and has not been altered. The structure has an overall length of 28.7 meters (94 feet) and has a clear roadway width of 3.4 meters (11 feet) between the curbs; there are no sidewalks. The bridge is built on a skew of 45 degrees. The out-to-out width is 4.3 meters (14 feet). The superstructure consists of two barrel arches which support a concrete deck and solid concrete parapets. Each arch spans 13.7 meters (44.8 feet) with a clear height of 3.7 meters (12 feet). The concrete cast-in-place deck is .36 meters (1.17 feet) thick and it has a bituminous wearing surface. The structure has solid parapets with exterior incised panels and the roadway approaches have vertical curves on the north and south approaches. The only approach guardrail begins in front of the southeast wingwall and ends before the bridge. The substructure consists of two concrete abutments and a concrete pier at mid-span. There are four, flared reinforced concrete wingwalls. The bridge is not posted for weight restrictions, and has a sufficiency rating of 49.5.

According to the 1997 inspection report, this structure was in fair condition with cracking and spalling. The bituminous concrete wearing surface is heavily worn and the asphalt along the roadway edge is raveling. The arches are cracked and spalled with exposed reinforcement bars. The abutments are severely scaling and cracked, while the pier is spalling and scaling on all sides. Also, the concrete parapets are cracked and spalled with random areas of dead sounding concrete.

Discuss Major Alterations:

The bridge was originally constructed in 1919, and no major rehabilitation work has occurred since the time of construction.

HISTORY:

WHEN was the bridge built: ___1919___

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?

D.P. Lefevre

WHO was the builder?

Enterprise Construction Company

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 eligible for the National Register of Historic Places under Criterion C, as a significant example of concrete arch construction. The structure has a high degree of integrity and retains such character-defining elements of the type as the arch ring, barrel, spandrel wall, parapets, abutments, pier and wingwalls.

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

The advent of modern concrete technology fostered a renaissance of arch bridge construction in the United States. Reinforced concrete allowed the arch bridge to be constructed with much more ease than ever before and maintained the load-bearing capabilities of the form. As the structural advantages of reinforced concrete became apparent, the heavy, filled barrel of the arch was lightened into ribs. Spandrel walls were opened, to give a lighter appearance and to decrease dead load. This enabled the concrete arch to become flatter and multi-centered, with longer spans possible. Designers were no longer limited to the semicircular or segmental arch form of the stone arch bridge. The versatility of reinforced concrete permitted development of a variety of economical bridges for use on roads crossing small streams and rivers.

Maryland's roads and bridge improvement programs mirrored economic cycles. The first road improvement 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 1920-1929, 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 been inadequate to the huge freight trucks and volume of passenger cars in use, with major improvements occurring in the late 1930's.

As the nation's automotive traffic increased in the early twentieth century, local road networks were consolidated, and state highway departments were formed to supervise the construction and improvement of state roads. With a diverse topographical domain encompassing numerous small and large crossings, Maryland engineers quickly recognized the need for expedient design and construction through the standardization of bridge designs.

The concept and practice of standardization was one of the most important developments in engineering of the twentieth century. In Maryland, as in the rest of the nation, the standardized concrete types became the predominant bridge types built. In the period 1911 to 1920 (the decade in which standardized plans were introduced), beams and slabs constituted 65 percent and arches 35 percent of the extant 29 bridges built in Maryland during this period. In the following decade, 1921-1930, the beam (now the T-beam) and slab increased to 73 percent and the arch had declined to 27 percent of the 129 extant bridges; in the next decade (1931-1940), the beam and slab achieved 82 percent and arches had further declined, constituting only 18 percent of the total of extant bridges built on state-owned roads between 1931 and 1946.

Although beam and slab bridges became the utilitarian choice, it appears that the arch was selected when aesthetic as well as other site conditions were considered. The architectural treatment of extant arch bridges supports this assessment. Many of these bridges were multiple span structures with open spandrels or masonry facing. Another decorative feature of the concrete arch bridge was an open, balustrade-style parapet. Despite the popularity of ornamental arches and the increase in use of beam and slab bridges, examples of simpler, single and multiple span closed concrete arch bridges with solid parapets continued to be constructed throughout the early twentieth century.

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?

The bridge is located in an area which does not appear to be eligible for historic designation.

Is the bridge a significant example of its type?

The bridge is a potentially significant example of a concrete arch 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 arch ring, barrel, spandrel walls, parapets, abutments, pier and wingwalls, however some deterioration is evident.

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?

No further study of this bridge is required to evaluate its significance.

BIBLIOGRAPHY:

County inspection/bridge files X **SHA inspection/bridge files** _____
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.

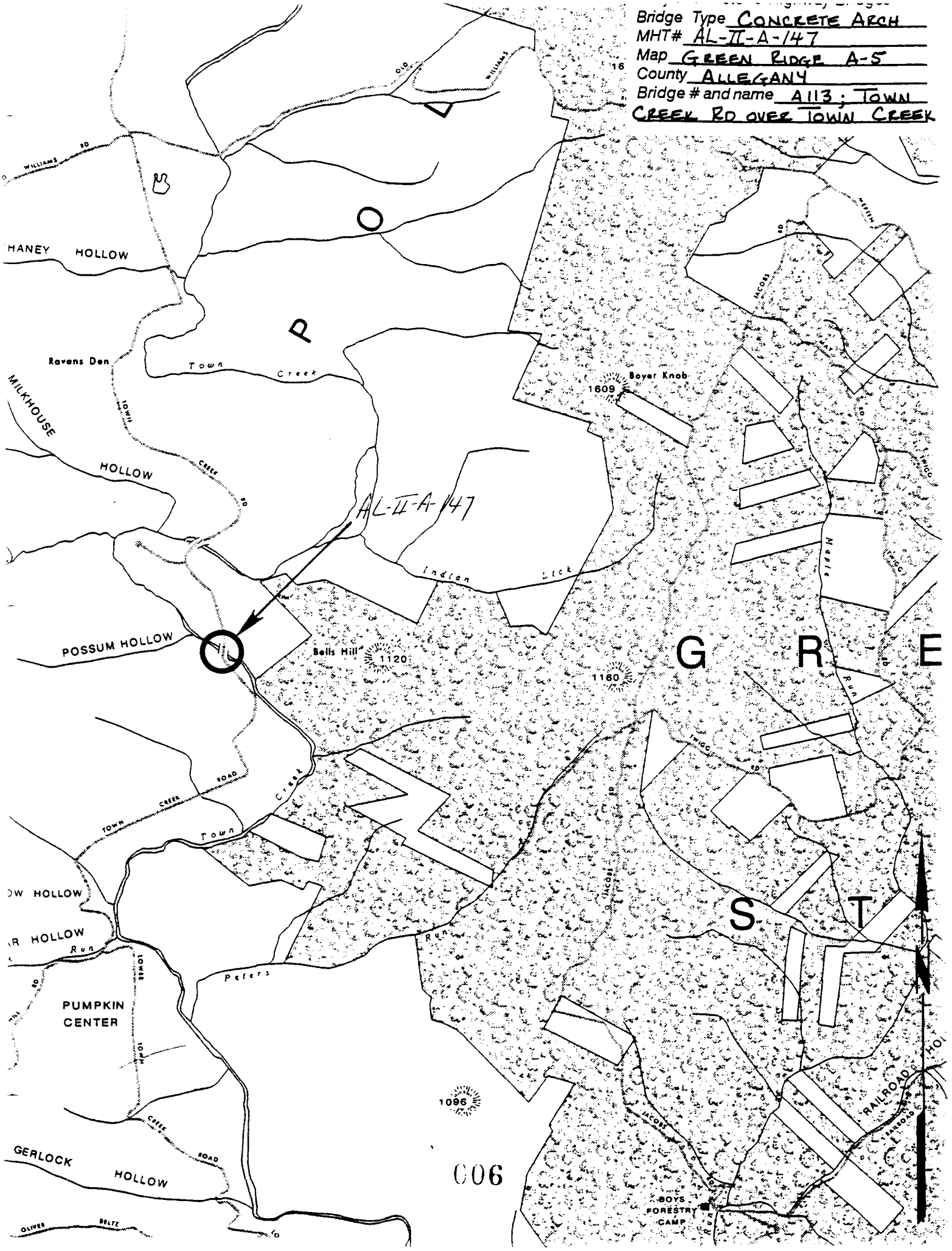
P.A.C. Spero & Company and Louis Berger & Associates
1995 Historic Highway Bridges in Maryland: 1631-1960: Historic Context Report. Maryland State Highway Administration, Maryland State Department of Transportation, Baltimore, Maryland.

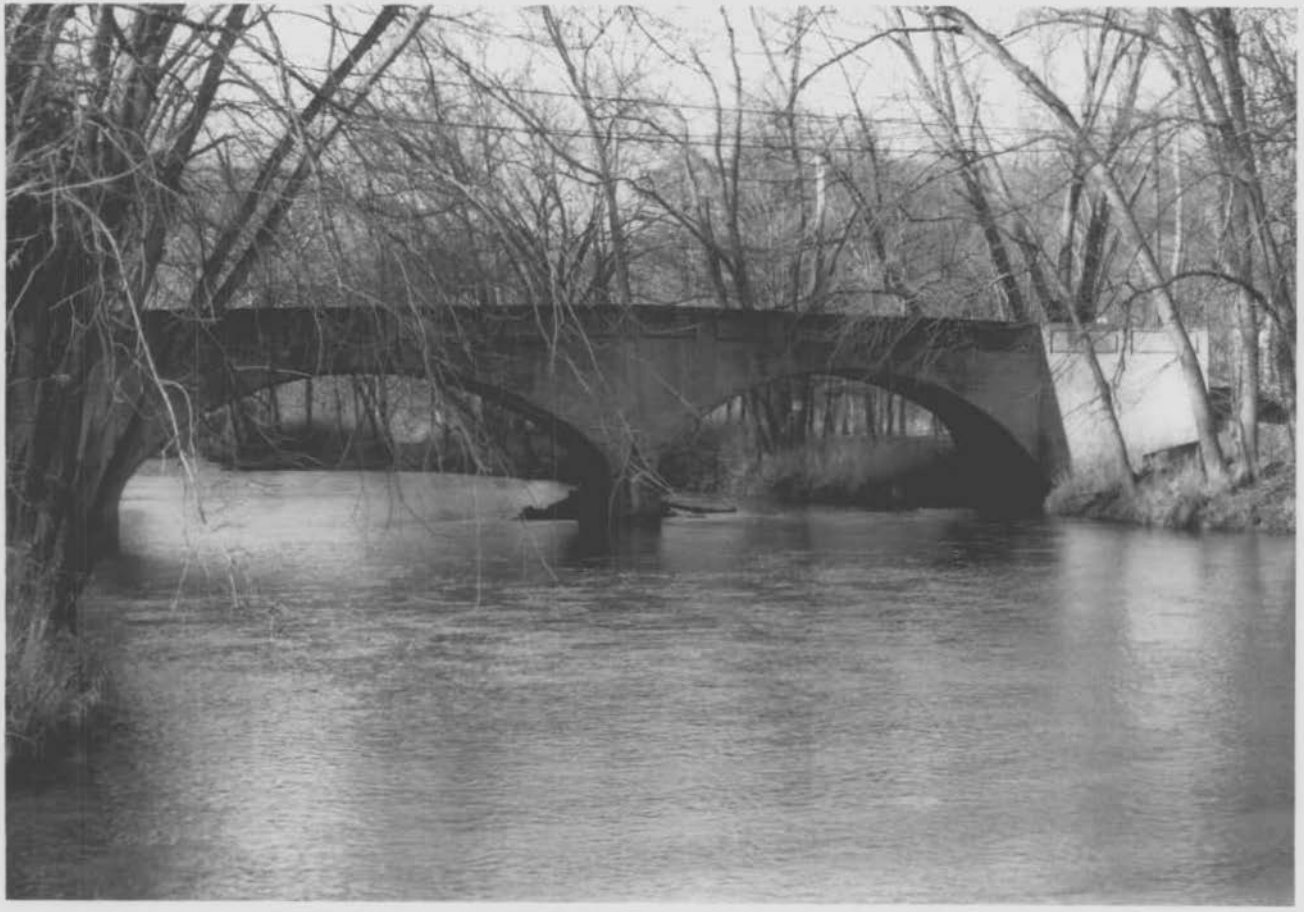
Tyrrell, H. Grattan
1909 *Concrete Bridges and Culverts for Both Railroads and Highways*. The Myron C. Clark Publishing Company, Chicago and New York.

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

Bridge Type CONCRETE ARCH
MHT# AL-II-A-147
Map GREEN RIDGE A-5
County ALLEGANY
Bridge # and name A113 ; TOWN CREEK RD OVER TOWN CREEK





1. AL-II-A-147
2. Town Creek Road No. 3 over Town Creek
3. Allegany Co., MD
4. Wallace, Montgomery & Assoc.
5. 12/97
6. MD SHPO
7. Elevation looking upstream
8. 1 of 6

ROAD DIRECTORS
J.J. LYDINGER CHM
LEE HAINES
JAS. E. CRUMP
A. C. RAWLINGS

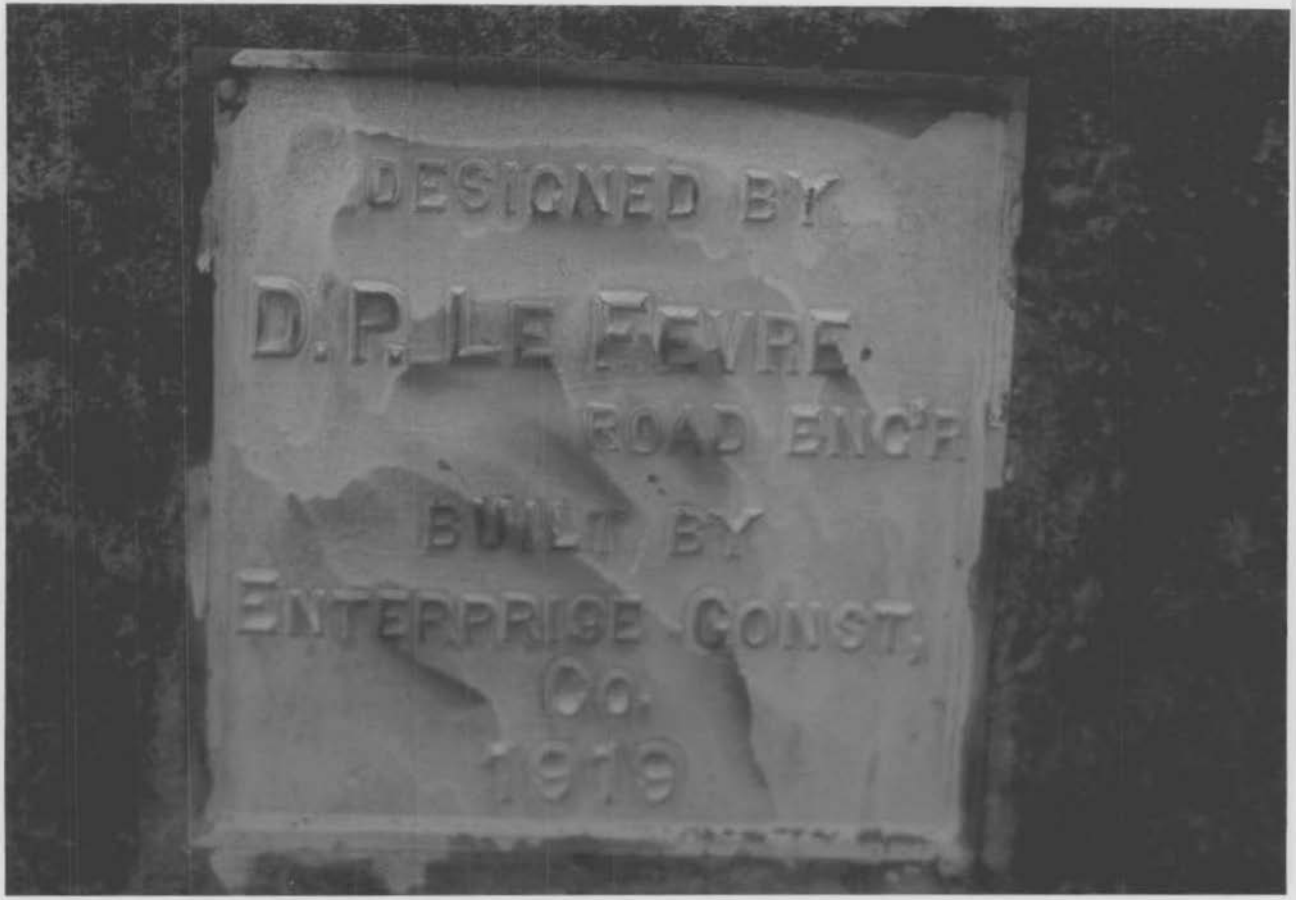
1. AL-11-A-147
2. Town Creek Road No. 3 over Town Creek
3. Allegany Co., MD
4. Wallace, Montgomery & Assoc.
5. 12/97
6. MD SHPO
7. Bronze plaque, upstream wall
8. 2 of 6

1. AL-II-A-147
2. Town Creek Road No. 3 over Town Creek
3. Allegany Co., MD
4. Wallace, Montgomery & Assoc.
5. 12/97
6. MD SHPO
7. Elevation looking downstream
8. 3 of 6

1. AL-II-A-147
2. Town Creek Road No. 3 over Town Creek
3. Allegany Co., MD
4. Wallace, Montgomery & Assoc.
5. 12/97
6. MD SHPO
7. Looking West
8. 4 of 6

FLOID

1 AL-II-A-147
2. Town Creek Road No. 3 over Town Creek
3. Allegany Co., MD
4. Wallace, Montgomery & Assoc.
5. 12/97
6. MD SHPO
7. Looking East
8. 5 of 6


DESIGNED BY
D. P. LE FEVRE.
ROAD ENG'R
BUILT BY
ENTERPRISE CONST.
CO.
1919

1. AL-II-A-147
2. A113, TOWN CREEK ROAD OVER TOWN CREEK
3. ALLEGANY COUNTY, MD
4. WALLACE - MONTGOMERY
5. 12/97
6. MD SHPO
7. PLAQUE - DOWNSTREAM WALL
8. 6 OF 6

INDIVIDUAL PROPERTY/DISTRICT
MARYLAND HISTORICAL TRUST
INTERNAL NR-ELIGIBILITY REVIEW FORM

Property/District Name: Town Creek Road Bridge NO. 3 Survey Number: AL-II-147

Project: CENAB-OP-RP (AL DPW) 98-61484-16 Agency: FHWA/COE

Site visit by MHT Staff: XX no ___ yes Name _____ Date _____

Eligibility recommended X Eligibility **not** recommended _____

Criteria: ___A ___B XXC ___D Considerations: ___A ___B ___C ___D ___E ___F ___G ___None

Justification for decision: (Use continuation sheet if necessary and attach map)

Bridge NO. A113, over Town Creek, Allegany County, MD is a two-span concrete arch structure built in 1919, which has not been altered since its initial construction. Furthermore, it has been determined eligible for the National Register of Historic Places by the Interagency Historic Bridge Committee. The bridge is a reinforced ɔncrete structure has a filled spandrel, a solid parapet with incised panels on the exterior of the parapet, a pier, wingwalls and abutments, and appears to be in fair condition based on the photographs submitted with the Historic Bridge Survey Inventory Form and the Allegany County Dept. of Public Works. Based on the information provided, the Office of Preservation Services concurs with the eligiblity determination based on Criterion C for the National Register. The bridge does not appear to qualify for inclusion in the National Register under criteria A, B or D.

Documentation on the property/district is presented in: Project Review & Compliance Files

Prepared by: SHA

Anne E. Bruder — February 13, 1998
Reviewer, Office of Preservation Services — Date

NR program concurrence: X yes ___ no ___ not applicable

Peter E. Kurtze — 2/18/98
Reviewer, NR program — Date

JMG

Survey No. AL-11-A-147

MARYLAND COMPREHENSIVE HISTORIC PRESERVATION PLAN DATA - HISTORIC CONTEXT

I. Geographic Region:

____	Eastern Shore	(all Eastern Shore counties, and Cecil)
____	Western Shore	(Anne Arundel, Calvert, Charles, Prince George's and St. Mary's)
X	Piedmont	(Baltimore City, Baltimore, Carroll, Frederick, Harford, Howard, Montgomery)
____	Western Maryland	(Allegany, Garrett and Washington)

II. Chronological/Developmental Periods:

____	Paleo-Indian	10000-7500 B.C.
____	Early Archaic	7500-6000 B.C.
____	Middle Archaic	6000-4000 B.C.
____	Late Archaic	4000-2000 B.C.
____	Early Woodland	2000-500 B.C.
____	Middle Woodland	500 B.C. - A.D. 900
____	Late Woodland/Archaic	A.D. 900-1600
____	Contact and Settlement	A.D. 1570-1750
____	Rural Agrarian Intensification	A.D. 1680-1815
____	Agricultural-Industrial Transition	A.D. 1815-1870
X	Industrial/Urban Dominance	A.D. 1870-1930
____	Modern Period	A.D. 1930-Present
____	Unknown Period (___ prehistoric ___ historic)	

III. Prehistoric Period Themes:

____ Subsistence
____ Settlement
____ Political
____ Demographic
____ Religion
____ Technology
____ Environmental Adaptation

IV. Historic Period Themes:

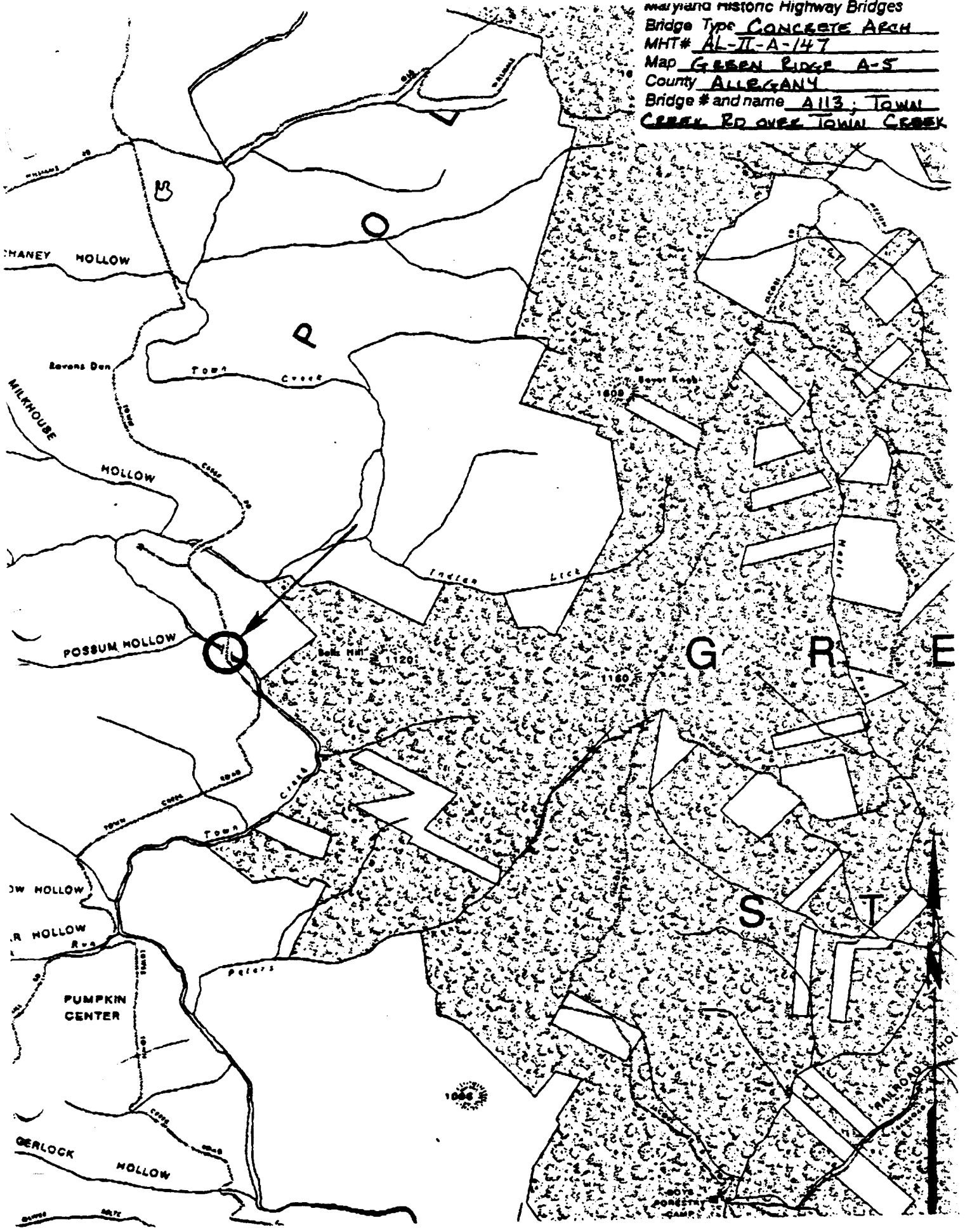
____ Agriculture
X Architecture, Landscape Architecture, and Community Planning
____ Economic (Commercial and Industrial)
____ Government/Law
____ Military
____ Religion
____ Social/Educational/Cultural
X Transportation

V. Resource Type:

Category: Structure
Historic Environment: Rural
Historic Function(s) and Use(s): Transportation -- stream crossing

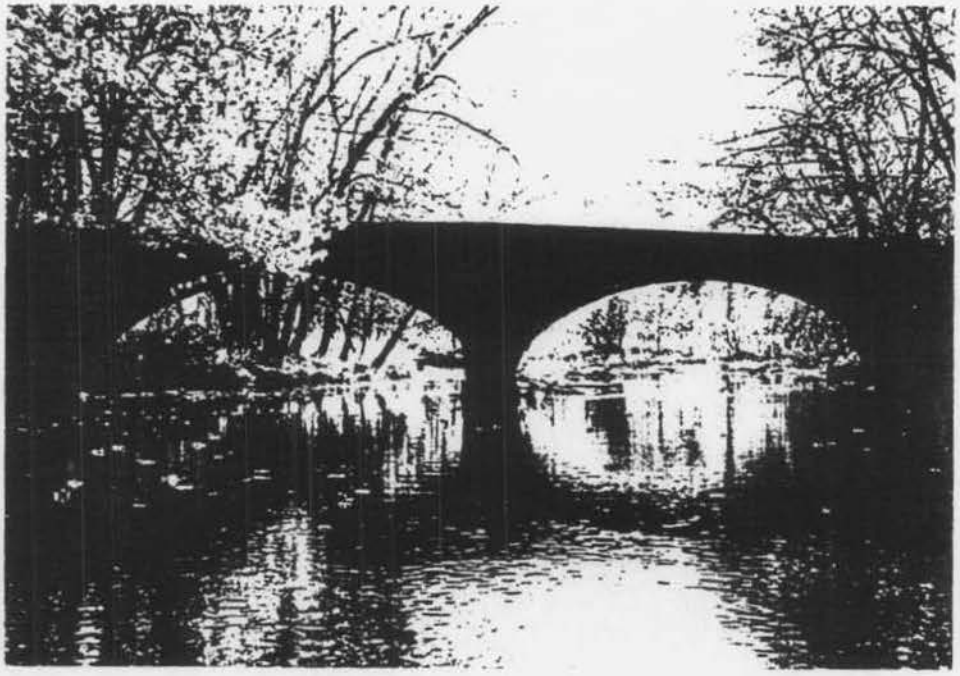
Known Design Source: _____

Maryland Historic Highway Bridges
Bridge Type CONCRETE ARCH
MHT# AL-II-A-147
Map GERRIN RIDGE A-5
County ALLEGANY
Bridge # and name A113; TOWN CREEK RD OVER TOWN CREEK



ON FLINTSTONE QUAD

1. EAST ELEVATION (LOOKING WEST)



2. WEST ELEVATION (LOOKING EAST)