MARYLAND HISTORICAL TRUST
DETERMINATION OF ELIGIBILITY FORM

NR Eligible: yes ___ no X

Property Name: SHA Bridge No. 0216700 Inventory Number: AA-2124

Address: MD 176 (Dorsey Road) over Stony Run Historic district: ___ yes X no

City: Harmans Zip Code: 21077 County: Anne Arundel

USGS Quadrangle(s): Relay

Property Owner: Maryland State Highway Administration Tax Account ID Number: ___

Tax Map Parcel Number(s): ___ Tax Map Number: 8

Project: MD 176 over Stony Run, Remedial Repairs to Bridge No. 0216 Agency: Maryland State Highway Administration

Agency Prepared By: Maryland State Highway Administration

Preparer's Name: Anne Bruder / Ryan DeSmith Date Prepared: 06/27/2012

Documentation is presented in: Project Review and Compliance Files

Preparer's Eligibility Recommendation: ___ Eligibility recommended X Eligibility not recommended

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

Complete if the property is a contributing or non-contributing resource to a NR district/property:

Name of the District/Property: ___

Inventory Number: ___ Eligible: ___ yes Listed: ___ yes

Site visit by MHT Staff ___ yes X no Name: ___ Date: ___

Description of Property and Justification: *(Please attach map and photo)*

SHA Bridge No. 0216700 carries traffic along MD 176 (Dorsey Road) crossing Stony Run in Anne Arundel County. MD 176 runs east-west and Stony Run flows north-south. The structure is located in Harmans, and is surrounded by commercial property, single-family dwellings, and open space. The bridge is a single-span, four-lane concrete slab that runs parallel with the roadway. Built in 1936 in conjunction with the MD 176 over Amtrak Bridge No. 0205100, the superstructure is a single concrete slab which spans two supporting rusticated abutments. Designed to accommodate heavy truck loads (H-20), the span has a 20-foot span and is 52 feet long by 27 feet wide. The original contract number was AA-73-2-321.

Small slab structures were built in the first decade of the 20th century. The first reinforced concrete bridge in Maryland was the Lancaster Street Bridge built in 1902. By 1912, the State Roads Commission included reinforced concrete slabs in the Standard Plans for structures 6 to 16 feet in length. In 1920, supplemental plans for 20-foot concrete slab spans and greater began to be designed. During the period of 1910-1940, standardization of small concrete bridges by state and local authorities was implemented due to the need for grade crossing elimination, a continuing public effort to eliminate dangerous at-grade crossing of railroad tracks by automotive and wagon traffic.

Because the bridge is below the grade of the road and is covered by fill, it lacks character-defining elements such as the decorative

MARYLAND HISTORICAL TRUST REVIEW

Eligibility recommended ___ **Eligibility not recommended** X

Criteria: ___A ___B ___C ___D **Considerations:** ___A ___B ___C ___D ___E ___F ___G

MHT Comments:

[signature] ✓ 8/16/2012

Reviewer, Office of Preservation Services **Date**

N/A

Reviewer, National Register Program **Date**

201203752

parapet usually found in Standard Plan bridges from the mid-1930s. The slab structure is a common type of crossing found on many highways throughout Maryland.

Based on research conducted by SHA, we have determined that SHA Bridge No. 0217600, MD 176 over Stony Run, is not eligible for the National Register of Historic Places (NRHP) under Criterion A (events), Criterion B (persons) or Criterion C (engineering/architecture). NRHP Criterion D was not investigated as part of this study. The historic boundary is confined to SHA's right-of-way for MD 176 at the bridge's location over Stony Run.

Sources Consulted:

Spero, P.A.C. & Berger, Louis, "Historic Highway Bridges in Maryland: 1631 -1960 Historic Context Report," Baltimore: State Highway Administration (1995).

Parsons Brinckerhoff Quade & Douglas, Inc., "Small Structures on Maryland Roadways Historic Context Report," Baltimore: State Highway Administration (1995).

Maryland Department of Transportation, "Office of Structures Bridge Inventory," Baltimore: State Highway Administration (2009).

MARYLAND HISTORICAL TRUST REVIEW

Eligibility recommended _____ **Eligibility not recommended** _____

Criteria: ___A ___B ___C ___D **Considerations:** ___A ___B ___C ___D ___E ___F ___G

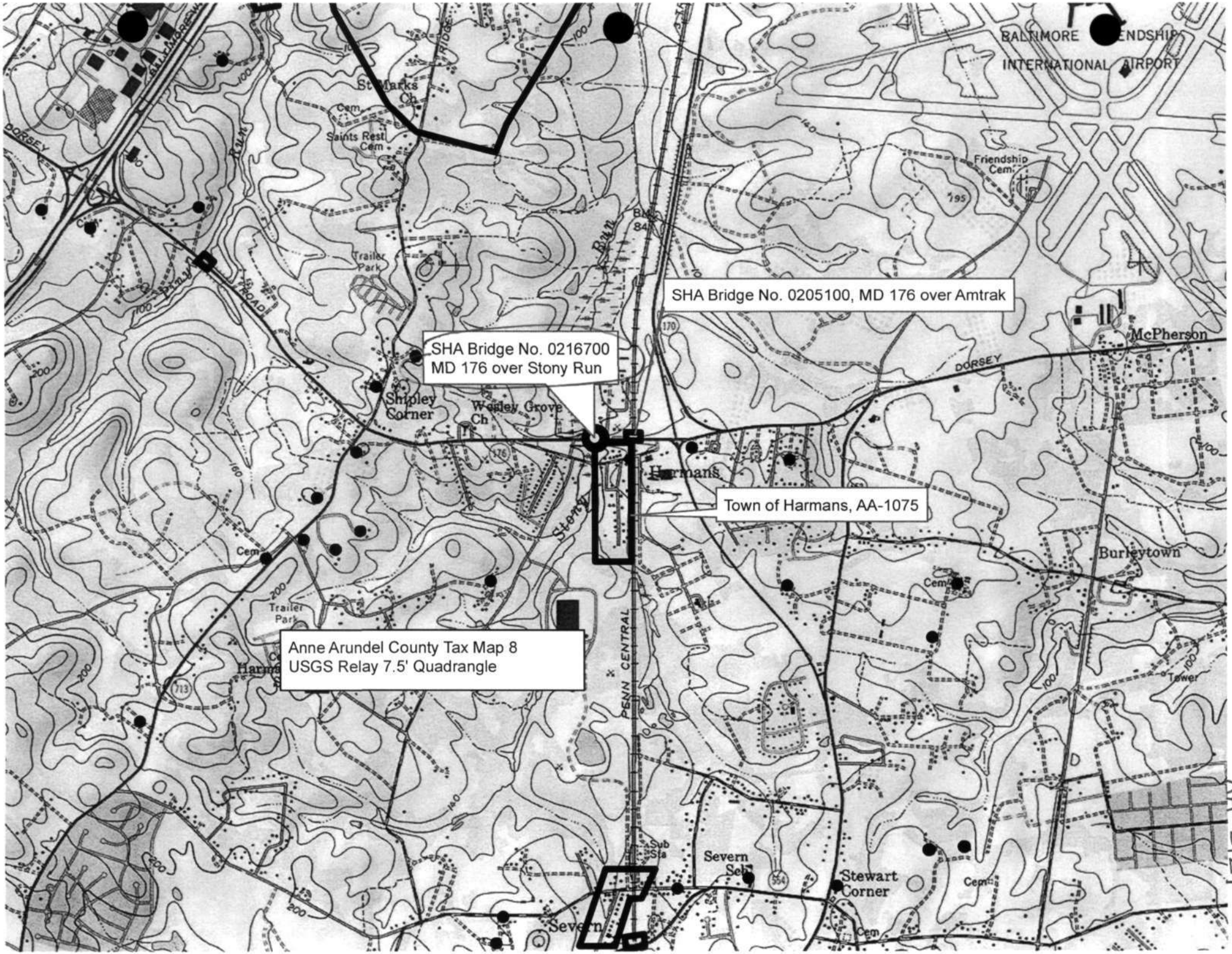
MHT Comments:

_____ _____

Reviewer, Office of Preservation Services **Date**

_____ _____

Reviewer, National Register Program **Date**



BALTIMORE
INTERNATIONAL AIRPORT
St Marks Ch
Saints Rest Cem
Friendship Cem
Trailer Park
SHA Bridge No. 0205100, MD 176 over Amtrak
SHA Bridge No. 0216700
MD 176 over Stony Run
McPherson
DORSEY
Shipley Corner
Wesley Grove Ch
Harmans
Town of Harmans, AA-1075
Burleytown
Anne Arundel County Tax Map 8
USGS Relay 7.5' Quadrangle
PENN CENTRAL
Severn Sch
Stewart Corner
Severn

AA-2124

Maryland State Highway Administration
Cultural Resources Section
Photo Log

Project No.: 2380202-B16700
Project Name: MD 176 over Stony Run, Remedial Repairs to Bridge No. 0216700
MIHP No.: AA-2124
MIHP Name: SHA Bridge No. 0216700
County: Anne Arundel
Photographer: SHA
Date: 9-10-2000
Ink and Paper Combination: Epson UltraChrome pigmented ink/Epson Premium Luster Photo Paper
CD/DVD: Verbatim, CD-R, Archival Gold

Image File Name	Description of View
AA-2124_2000-09-10_01.tif	North elevation of SHA Bridge No. 0216700

AA-2124

SHA Bridge No. 0216700

Anne Arundel Co., MD

SHA

9/10/2000

MD SHPO

North elevation of SHA Bridge No. 0216700

1/1

Memo to file

March 16, 2016

From: Casey Pecoraro
Inventory Registrar

Re: AA-2124
SHA Bridge No. 0216700

The following Historic Bridge Inventory form, prepared in 1995 to document the concrete slab bridge carrying MD 176 over Stony Run, was completed using SHA Bridge No. 2167 (or 02167). The SHA Office of Structures, Remedial Section, later changed the formatting of bridge numbers from five-digits to seven or nine-digits (Anne Bruder, personal communication, June 26, 2015).

SHA Bridge No. 2167 corresponds with SHA Bridge No. 0216700.

MARYLAND INVENTORY OF HISTORIC BRIDGES
HISTORIC BRIDGE INVENTORY
MARYLAND STATE HIGHWAY ADMINISTRATION/
MARYLAND HISTORICAL TRUST

MHT No. AA-2124

SHA Bridge No. 2167 Bridge name MD 176 over Stony Run

LOCATION:

Street/Road name and number [facility carried] MD 176

City/town Harmans Vicinity _____

County Anne Arundel

This bridge projects over: Road ___ Railway___ Water X Land ___

Ownership: State X County __ Municipal _____ Other _____

HISTORIC STATUS:

Is the bridge located within a designated historic district? 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_____ Concrete Slab X Concrete Beam ___ Rigid Frame
Other _____ Type Name _____

DESCRIPTION:

Setting: Urban _____ **Small town** __X__ **Rural** ____

Describe Setting:

Bridge No. 2167 carries MD 176 and Shipley Avenue over Stony Run in the town of Harmans, Anne Arundel County, Maryland. MD 176 and Shipley Avenue run east-west, while Stony Run flows south to north. The area surrounding the bridge is developed with a residential area to the south and an industrial/commercial development to the north, east and west.

Describe Superstructure and Substructure:

Bridge No. 2167 over Stony Run in Harmans, Anne Arundel County, Maryland is a single span standard concrete slab bridge built in 1935. The span length is 20' and the total width is 152'. The bridge is not currently posted.

The superstructure, consisting of the slab and roadway are in a deteriorated condition. The slab has several transverse and diagonal cracks with efflorescence, spalling and wet areas. In addition, there is an 8' long section of expansion joint material hanging 5" below the slab at the first construction joint. The north headwall has some spalling along the top edge. The south headwall is heavily spalled over 75% of the surface and sounds hollow over the entire face. The spalled area has transverse and longitudinal rebar exposed. The bituminous riding surface has many transverse and longitudinal cracks and a few patched areas. W-beam guardrails replaced the parapets at an unknown date.

The substructure consists of the abutments and wingwalls. The concrete abutments have several vertical cracks and areas of efflorescence and spalling. The south corner of the west abutment has an area of spalling at the waterline which measures 2' long, 1' tall and 1" deep. The east end has much smaller spalling. Both abutments have small hollow spots throughout. The wingwalls are flared at a 45 degree angle to the roadway centerline and are decorated with molded chamfering. All four wingwalls have spalled areas along the waterline. The largest area occurs on the southwest wingwall and continues from the spalled area on the abutment mentioned above. This spalling measures 3' long, 1' tall and 1" deep.

Discuss Major Alterations:

The approach to the railroad tracks of the Amtrak line, located approximately 100' to the east of Bridge No. 2167, was regraded at an unknown date. This caused a significant change in grade elevation to MD 176 over the bridge. As a result, MD 176 is approximately 15' above the deck surface of Bridge No. 2167 at an incline towards the east. Shipley Avenue was not regraded and does not cross the railroad tracks. The parapets were replaced with W-beam guardrails at an unknown date.

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__

WHY was the bridge built?

By 1930, Maryland's primary road system had become inadequate to the huge freight trucks and volume of passenger cars in use. Many major improvement projects occurred in the 1930s.

WHO was the designer?
Unknown

WHO was the builder?
State Roads Commission

WHY was the bridge altered?
Changes and improvements to MD 176 and the nearby Amtrak rail line resulted in the changes made upon the bridge. These alterations were not made in an effort to increase the ability of the bridge but to adapt it to other improvements in the area.

WAS this bridge built as part of an organized bridge-building campaign?
Yes, as part of a 1930's plan to improve secondary roads.

SURVEYOR/HISTORIAN ANALYSIS:

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

This bridge does not have National Register significance.

Was the bridge constructed in response to significant events in Maryland or local history?
Reinforced concrete slab bridges are a twentieth century structure type, easily adapted to the need for expedient engineering solutions. Reinforced concrete technology developed rapidly in the early twentieth century with early recognition of the potential for standardized design. The first U.S. attempt to standardize concrete design specifications came in 1903-1904 with the formation of the Joint Committee on Concrete and Reinforced Concrete of the American Society of Civil Engineers.

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 Commissions 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. Most improvements to local roads waited until the years after World War II.

With a diverse topographical domain encompassing numerous small and large crossings, Maryland engineers quickly recognized the need for expedient design and construction.

In 1930, the roadway width for all standard plan bridges was increased to 27 feet in order to accommodate the increasing demands of automobile and truck traffic (State Roads Commission 1930). The range of span lengths remained the same, but there were some changes designed to increase the load bearing capacities. The reinforcing bars increased in thickness. Visually, the 1930 design can be distinguished from its predecessors by the pierced concrete railing that was introduced at this time.

In 1933, a new set of standard plans were introduced by the State Roads Commission. This time their preparation was not announced in the commission's Report; new standard plans were by this time nothing special - they had indeed become standard. Once again accommodating the ever-increasing demands of traffic, the roadway was increased, this time to 30 feet. The slab span's reinforcing bars remained the same diameter but were placed closer together to achieve still more load capacity.

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?
No, this bridge did not greatly effect the area surrounding it. The structure did not increase settlement or industry.

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?
No, this bridge is not located in an area which is eligible for historic designation.

Is the bridge a significant example of its type?
No, this structure is not a significant example of type. The character defining elements are either missing or they are not present in their original form.

Does the bridge retain integrity of the important elements described in the Context Addendum?
No, this structure does not retain the integrity of its original design because its character defining elements have been removed or are in a deteriorated state.

Is bridge a significant example of work of a manufacturer, designer and/or engineer?
No, this structure is not a significant example of the work of the State Roads Commission.

Should bridge be given further study before an evaluation of its significance is made?
No, this structure should not be given further study. Changes to the structure have its integrity in doubt.

BIBLIOGRAPHY:

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

SURVEYOR/SURVEY INFORMATION:

Date bridge recorded 8/11/95
Name of surveyor Timothy J. Tamburrino
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 AA-2134
Bridge Type CONCRETE SLAB
Map FORT MEADE, E-12
County ANNE ARUNDEL
Bridge # and Name 2167, MD 176
OVER STONY RUN

Inventory # AA-2124

Name 2167-MD 176 OVER STONY RUN
County/State ANNE ARUNDEL COUNTY/MD
Name of Photographer WALLY KING
Date 1/95

Location of Negative SHA

Description NORTH ELEVATION

Number ~~19 of 24~~ 1 of 4

Inventory # AA-2124

Name 2162-MD176 OVER STONY RUN
County/State ANNE ARUNDEL COUNTY / MD
Name of Photographer WALLY KING
Date 1/95

Location of Negative SHA

Description EAST APPROACH LOOKING WEST

Number ~~20 of 24~~ 2 of 4

Inventory # AA-2124

Name 2161-MD176 OVER STONY RUN
County/State ANNE ARUNDEL COUNTY/MD
Name of Photographer WALLY KING
Date 1/95

Location of Negative SHA

Description WEST APPROACH LOOKING EAST

Number ~~21 of 24~~ 3 of 4

Inventory # AA-2124

Name 2167-MD176 OVER STONY RUN
County/State ANNE ARUNDEL COUNTY/MD
Name of Photographer WALLY KING
Date 1/95

Location of Negative SHA

Description SOUTH ELEVATION

Number ~~22 of 24~~ 4 of 4