Maryland Historical Trust

Maryland Inventory of Historic Properties number: PG:86A-28

Name: 16062/MD 382 OVER MATAPONI CRK.

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
HISTORIC BRIDGE INVENTORY
MARYLAND STATE HIGHWAY ADMINISTRATION/
MARYLAND HISTORICAL TRUST

MHT No. PG:86A-28

SHA Bridge No. 16062 **Bridge name** MD 382 over Mataponi Creek

LOCATION:
Street/Road name and number [facility carried] MD 382

City/town Croom **Vicinity** X

County Prince George's

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? Yes ____ **No** X
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** _____ **Rural** _____X_____

Describe Setting:

Bridge No. 16062 carries MD 382 over Mataponi Creek in Prince George's County and crosses the line into Charles County. MD 382 runs in a north-south direction, and the creek flows east. The structure is located in a rural section of Prince George's County.

Describe Superstructure and Substructure:

Bridge No. 16062 is a two-lane two span concrete slab bridge with a clear span of 20'-0". The total bridge length is 45'. The superstructure consists of solid concrete parapets and a concrete slab. The parapets are integral with the bridge. Each of the approaches has a guardrail. The substructure comprises concrete abutments, a pier, and flared wingwalls. The bridge was constructed circa 1930 and corresponds to standard SHA Detail Sheets for a 20' concrete slab from 1924.

Both parapets have fine map cracking and light effluorescence on each. Areas at the base of each paparet are starting to spall off. The north abutment has fine map cracking, and there is a slight separation between the deck and abutment face. The 1994 inspection notes indicates there is scour along the south face of the pier and along the north face of the south abutment. Compared to old reports, the scour spots are getting longer but not deeper.

Discuss Major Alterations:

The State Highway Administration file for this bridge does not contain information concerning repairs or alterations made to the structure.

HISTORY:

WHEN was the bridge built (actual date or date range) circa 1930

This date is: Actual _____ **Estimated** _____X_____

Source of date: Plaque _____ **Design plans** _X_ **County bridge files/inspection form** _____

Other (specify) Maryland State Highway Administration bridge files

WHY was the bridge built?

Statewide road improvement programs and local transportation needs

WHO was the designer?

State Roads Commission

WHO was the builder?

State Roads Commission

WHY was the bridge altered?

Extent of alterations/repairs unknown.

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

Yes. This bridge was constructed as a part of post World War I improvements to secondary roads in Maryland.

SURVEYOR/HISTORIAN ANALYSIS:

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

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 1903-04 with the formation of the Joint Committee on Concrete and Reinforced Concrete of the American Society of Civil Engineers.

Maryland's road and bridge improvement programs mirrored economic cycles. The first road improvement program 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 to 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 become inadequate to the huge freight trucks and volume of passenger cars in use, with major improvements occurring in the late 1930s. 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 the early years, there was a need to replace the numerous single lane timber bridges. Walter Wilson Crosby, Chief Engineer stated in 1906, "The general plan has been to replace these [wood bridges] with pipe culverts or concrete bridges and thus forever do way with the further expense of the maintenance of expensive and dangerous wooden structures". Within a few years, readily constructed standardized bridges of concrete were being built throughout the state.

The creation of standard plans and a description of their use was first announced in the 1912-15 Reports of the State Roads Commission whereby bridges spanning up to 36 feet were to use standardized designs.

Published on a single sheet, the 1912 Standard Plans included those structures that were amenable to such an approach: slab spans, (deck) girder spans, box culverts, box bridges, abutments, and piers (State Roads Commission 1912). Slab spans, with lengths of 6 to 16 feet in two foot increments, featured a solid parapet that was integrated into the slab, with a roadway of 22 feet.

In the Report for the years 1916-1919, a revision of the standard plans was noted:

> During the four years covered by this report, it has been found necessary to revise our standard plans for culverts and bridges, to take care of the increased tonnage which they have been forced to carry. Army cantonments...increased their operations several hundred per cent, and the brunt of the enormous truck traffic resulting therefrom, was borne by the State Roads of Maryland. In addition to these war activities, freight motor lines from Baltimore to Washington, Philadelphia, New York, and various points throughout Maryland, and the weight of many of these trucks when loaded, was in excess of the loads for which our early bridges were designed (State Roads Commission 1920:56).

Published on separate sheets, the new standard plans (State Roads Commission 1919) for slab bridges reveal that the major changes was an increase in roadway width from 22 feet to 24 feet and a redesign of the reinforcement. The slab spans continued to feature solid parapets integrated into the span. The range of span lengths remained 6 to 16 feet, but the next year (1920) witnessed the issue of a supplemental plan for a 20 foot long slab span (State Roads Commission 1920).

The 1924 standard plans remained in effect until 1930, when 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 load bearing capacities. The reinforcing bars were increased in thickness. Visually, the 1930 design can be distinguished from its predecessors by the pierced concrete railing that was introduced at this time.

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?
Unknown.

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 may be eligible for historic designation.

Is the bridge a significant example of its type?
No. This bridge is not a significant example of its type due to the condition of character defining elements.

Does the bridge retain integrity of important elements described in Context Addendum?
The character-defining elements of Bridge No. 16062 appear to be intact. However, they are deteriorated.

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

Should the bridge be given further study before an evaluation of its significance is made?
No further evaluation is necessary to determine National Register significance. However, additional research concerning the history of this bridge and its relationship to the surrounding landscape may be useful in providing a more complete picture of the bridge's background.

PG: 86A-28

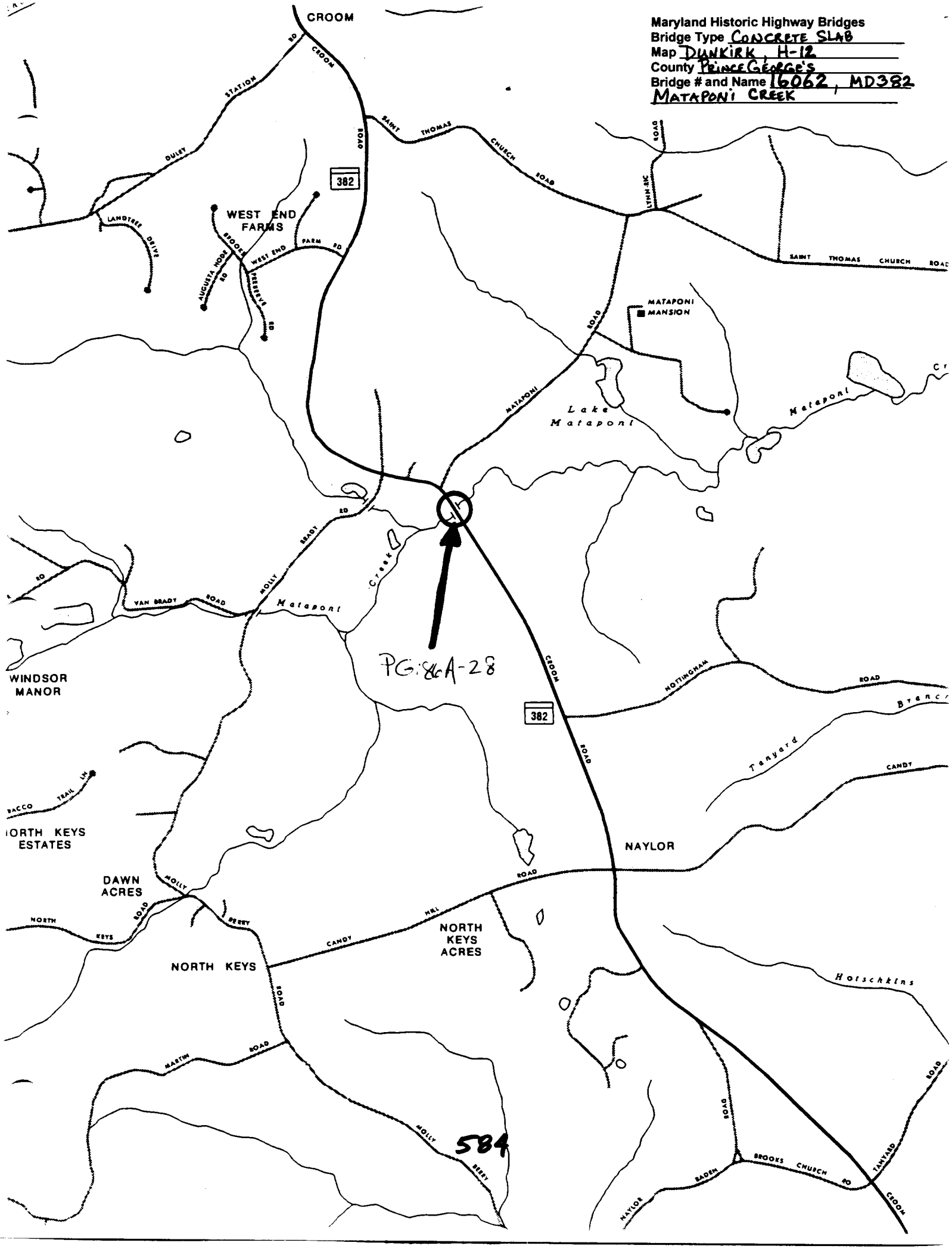
BIBLIOGRAPHY:

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

SURVEYOR:

Date bridge recorded August 1995
Name of surveyor Leo Hirrell
Organization/Address P.A.C. Spero & Company; 40 West Chesapeake Avenue, Suite 412; Baltimore, Maryland 21204
Phone number 410-296-1635 **FAX number** 410-296-1670

Maryland Historic Highway Bridges
Bridge Type CONCRETE SLAB
Map DUNKIRK, H-12
County PRINCE GEORGE'S
Bridge # and Name 16062, MD382
MATAPONI CREEK



Inventory # PG: 86A-28

Name 16062-MD382 OVER MATAPONI CREEK
County/State PRINCE GEORGES COUNTY / MD
Name of Photographer WALLY KING
Date 1/95

Location of Negative SHA

Description SOUTH APPROACH LOOKING NORTH

Number ~~14~~ 1 of ~~20~~ 4

Inventory # PG:86A-28

Name 16062-MD382 OVER MATAPONI CREEK

County/State PRINCE GEORGES COUNTY / MD

Name of Photographer WALLY KING

Date 1/95

Location of Negative SHA

Description NORTH APPROACH LOOKING SOUTH

Number 2 of 2

Inventory # PG:86A-28

Name 16062-MO382 OVER MATAPONI CREEK

County/State PRINCE GEORGES COUNTY/MD

Name of Photographer WALLY KING

Date 1/95

Location of Negative SHA

Description WEST ELEVATION

Number ~~16~~ 3 of ~~20~~ 4

Inventory # PG: 86A-28

Name 16062- MD382 OVER MATTAPONI CREEK

County/State PRINCE GEORGES COUNTY/MD

Name of Photographer WALLY KING

Date 1/95

Location of Negative SHA

Description EAST ELEVATION

Number ~~17 of 22~~ 4