

Maryland Historical Trust

Maryland Inventory of Historic Properties Number: BA-2653

Name: B-0124 - Dolfield Rd over Red 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>

PK

MARYLAND INVENTORY OF HISTORIC PROPERTIES
HISTORIC BRIDGE INVENTORY
MARYLAND STATE HIGHWAY ADMINISTRATION
MARYLAND HISTORICAL TRUST

MHT NO. BA-2653

NAME AND SHA NO.: B-0124

LOCATION

Road Name and Number: Dolfield Road over Red Run

City/Town: Owings Mills X vicinity

County: Baltimore

Ownership: State X County Municipal Other

Bridge projects over: Road Railway X Water Land

Is bridge located within 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 Bridge

 Metal Truss Bridge

 Moveable 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
 Concrete Arch Concrete Slab X Concrete Beam Rigid Frame
 Other Type Name

DESCRIPTION

Describe the Setting:

Bridge B-0124 carries Dolfield Road over Red Run in western Baltimore County. Dolfield Road runs east and west, while Red Run flows north-south. Located in the Piedmont physiographic province, a region characterized by variegated topography created by rivers and streams cutting through the valley, the bridge is surrounded entirely by wooded land.

**Describe the Superstructure and Substructure:
(Discuss points identified in Context Addendum, Section C)**

Bridge B-0124, a double-span concrete tee-beam structure, has a maximum clear span length of 22' and a total bridge length of 45'. The 17'-6" wide roadway carries two lanes of traffic. The current balustrade is made up of a low concrete curb topped with a pipe railing. Steel W-beam guardrails are attached to the concrete posts at the ends of the railings. The substructure consists of concrete and stone abutments and concrete wing walls and a concrete pier supporting the center of the bridge.

Details of the bridge's present condition from a 1993 inspection report included cracking, spalling with exposed reinforcing steel, and scaling of the underside of the deck, and minor vertical cracking and spalling at the post rail balusters. The tee-beams exhibit exposed stirrups and spalling, as well as hollow-sounding in 25% of the girders. The report also indicated that the wing walls showed delamination and deterioration and that the stone masonry portion of the abutments was in need of repointing.

A survey of historic concrete beam bridges undertaken by the Maryland State Highway Administration in the Fall of 1995 identified 113 bridges of that type located throughout the state. Nearly one-quarter (26) of that total were double-span bridges; 37 bridges (33%) were multiple span.

Discuss major alterations:

According to the Baltimore County inspection files, this bridge was rebuilt in 1967. The reports, however, do not elaborate on the type or extent of these repairs. Photographs dated January 1995 indicate that the parapet was replaced with a pipe railing. These photographs also illustrate the modern lines of the pier's design.

HISTORY

When Built: 1920/rebuilt 1967

Why Built: Statewide road improvement programs and local transportation needs.

Who Built: Unknown

Who Designed: Unknown

Why Altered: Unknown

Was this bridge built as part of an organized bridge building campaign?: no

This bridge was built during the Good Roads Movement era but was not one of the primary corridors slated for improvement.

SURVEYOR ANALYSIS

This bridge may have NR significance for association with:

A (Events) B (Person) C (Engineering/Architectural Character)

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

In many ways, Baltimore County was a leader in modern bridge construction, affecting the materials and design of concrete structures throughout the state. Baltimore was the first of the state's counties to hire a professional engineer to oversee construction and maintenance of its roads. Early Maryland Geological Survey and State Road Commission Reports relate that the county began to build concrete bridges and culverts in 1901, and that by 1903 had constructed many good roads and replaced old wooden bridges with permanent structures. The "progressive work" by the Baltimore county engineer in 1903 was evidenced by the first reinforced concrete highway bridge built in the state. The method of reinforcing concrete using steel rods embedded in concrete beams allowed the girders to withstand heavy loads with no steel surface exposed to air, thereby significantly reducing maintenance costs.

A 1906 state highway report stated that improvement projects begun in 14 counties included the widening, straightening, and/or grading of many existing roads, as well as the construction of many new bridges to carry these rebuilt roads. The rapid increase of automobile, truck, and bus traffic during the early decades of the twentieth century prompted the replacement of old bridges with new, modern concrete structures. During the 1920s, the State Road Commission embarked upon a plan to both improve the safety and comfort of the primary roads while also building up the secondary and farm-to-market road system. The establishment of district engineering offices during the 1910s, the creation of a separate bridge department within the State Road Commission in 1920, and the development of standard statewide specifications for bridges undoubtedly aided the construction of nearly 750 concrete bridges and culverts between 1902 and 1929 in Baltimore

**MARYLAND INVENTORY OF HISTORIC PROPERTIES
HISTORIC BRIDGE INVENTORY
MARYLAND STATE HIGHWAY ADMINISTRATION
MARYLAND HISTORICAL TRUST**

MHT NO. BA-2653

County. Finally, the elimination of toll roads, many of which ran through the county and terminated in Baltimore city, may have induced the improvement of additional county roads in an effort to provide unlimited access through the county.

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, the construction of this bridge did not play an active role in the growth or development of this portion of Baltimore County.

Is the bridge located in an area which may be eligible for historic designation, and would the bridge add or detract from the historic and visual character of the possible district?

No, this bridge is not located within an area which is eligible for historic district designation.

Is the bridge a significant example of its type?

No, due to its rebuilding in 1967, this bridge does not stand as a significant example of its type. Further, the use of stone for the substructure does not conform to concrete beam bridges constructed during the 1920s.

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

No, this bridge does not retain integrity of its character defining elements. Both of the parapets and the pier were replaced with modern designs/materials when the bridge was rebuilt in 1967. The bridge retains the majority of its original super- and substructure elements. However, according to the description of concrete beam bridges in the historic context, the primary character defining elements of a concrete tee-beam bridge's substructure generally consist of concrete abutments, wing walls, and piers. Therefore, the stone abutments, wing walls, and pier do not conform to this standard.

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

No, this bridge is not a significant example of the work of the manufacturer, designer, and/or engineer. This bridge was most likely built to standard state specifications, which corresponded to the structure's span length and year. Further, the rebuilding of the bridge in 1967 presumably compromised the structure's original design.

Should this bridge be given further study before significance analysis is made, and why?

No, this bridge should not receive further study.

BIBLIOGRAPHY

Baltimore County Department of Public Works

1993 Bridge inspection reports. Located in the files of the Engineering Bureau, Baltimore County Department of Public Works, Towson, Maryland.

Crosby, Walter Wilson

1906 *First Report on State Highway Construction (May 1905-January 1906)*. The Johns Hopkins Press, Baltimore.

1908 *Second Report on State Highway Construction (January 1906-January 1908)*. The Johns Hopkins Press, Baltimore.

Johnson, A.N.

1903 *Third Report on the Highways of Maryland (1902-1903)*. The Johns Hopkins Press, Baltimore.

LeViness, Charles T.

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

P.A.C. Spero and Company and Louis Berger and Associates, Inc.

1994 *Historic Bridges in Maryland: Historic Context Report*. Prepared for Maryland State Highway Administration, Maryland State Department of Transportation, Baltimore.

State Roads Commission of Maryland

1930 *Reports of the State Roads Commission of Maryland for the Years 1927, 1928, 1929, and 1930*. State of Maryland, State Roads Commission, Baltimore.

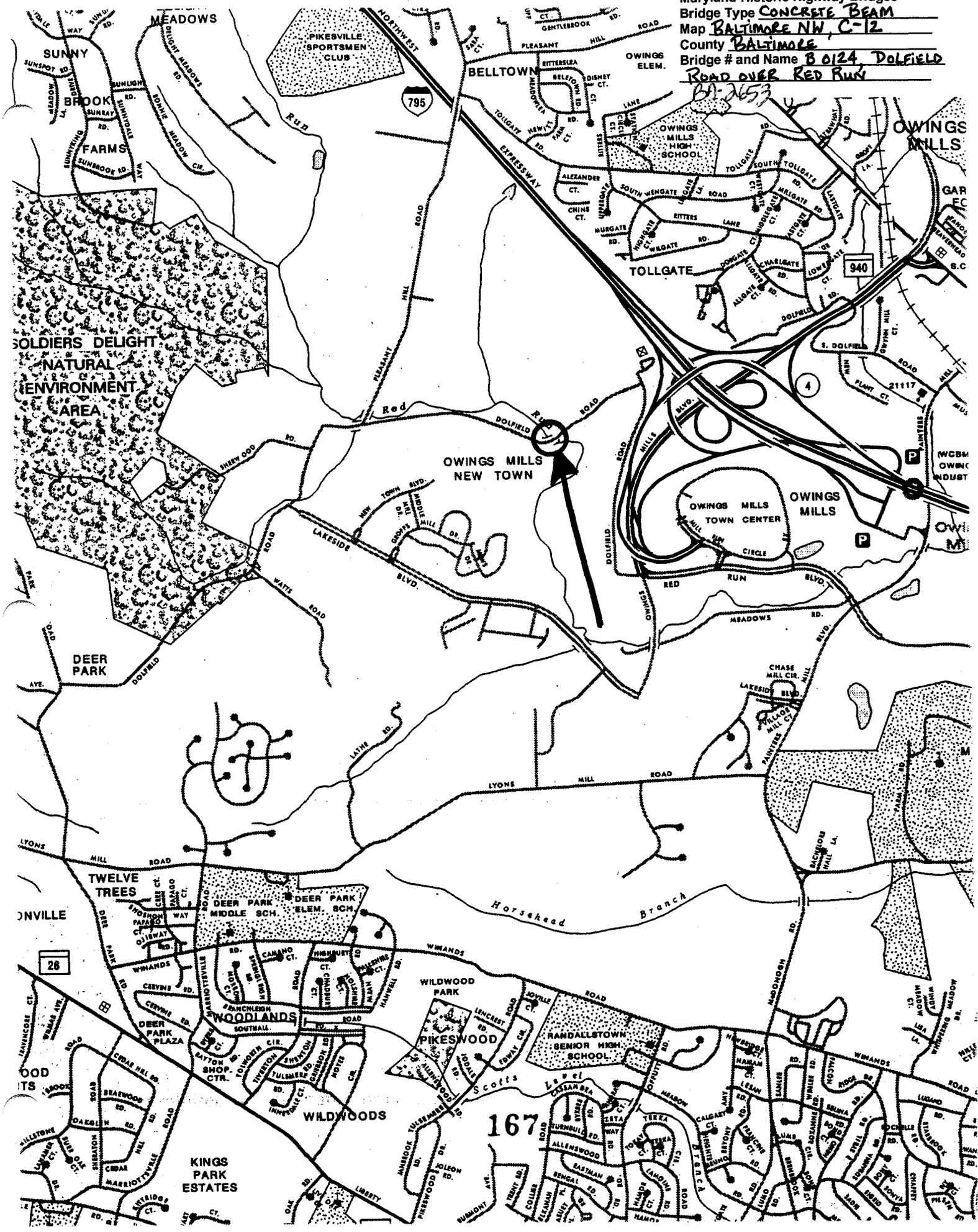
SURVEYOR INFORMATION

Name: Margaret A. Bishop
Organization: KCI Technologies, Inc.
Address: 5001 Louise Dr., Suite 201
Mechanicsburg, PA 17055

Date: 13 May 1996
Telephone: (717) 691-1340

Maryland Historic Highway Bridges
Bridge Type CONCRETE BEAM
Map BALTIMORE NW, C-12
County BALTIMORE
Bridge # and Name B 0124 DOLFIELD
ROAD OVER RED RUN

BA-2653





WEIGHT
LIMIT
10,000
15,000
20,000

Inventory # BA-2653

Name DU124- DOLFELD RD OVER RED RUN

County/State BALTIMORE COUNTY / MD

Name of Photographer DAVE DIEHL

Date 1/95

Location of Negative SNA

Description WEST APPROACH LOOKING

NORTHEAST

Number 123 of 214



Inventory # BA-2653

Name RD 24 - DOLFIELD RD OVER RED RUN

County/State BALTIMORE COUNTY/MD

Name of Photographer DAVE DIEHL

Date 1/95

Location of Negative SWA

Description SOUTH ELEVATION LOOKING
NORTH

Number 2 of 24



Inventory # BA-2653

Name 20124-DOLFIELD RD OVER RED RUN
County/State BALTIMORE COUNTY/MD
Name of Photographer DAVE DIEHL
Date 1/95

Location of Negative SHA

Description NORTH ELEVATION LOOKING
EAST

Number ³25 of ⁴31



Inventory # BA-2653

Name 10124-DOLFIELD RD OVER RED RUN

County/State BALTIMORE COUNTY/MO

Name of Photographer DAVE DIEHL

Date 1/95

Location of Negative SMA

Description EAST APPROACH LOOKING
WEST

Number 4 of 31