

Maryland Historical Trust

Maryland Inventory of Historic Properties number: B-4618

Name: FOREST PARK AVE. OVER GWYNNS FALLS

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 <u>X</u>	Eligibility Not Recommended _____
Criteria: <u>A</u> <u>B</u> <input checked="" type="checkbox"/> <u>C</u> <u>D</u>	Considerations: <u>A</u> <u>B</u> <u>C</u> <u>D</u> <u>E</u> <u>F</u> <u>G</u> <u>None</u>
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>

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

MHT No. B-4618

SHA Bridge No. BC 2205 Bridge name Forest Park Avenue over Gwynns Falls

LOCATION:

Street/Road name and number Forest Park Avenue

City/town Baltimore City Vicinity _____

County Baltimore

This bridge projects over: Road _____ Railway _____ Water X Land _____

Ownership: State _____ County _____ Municipal X Other _____

HISTORIC STATUS:

Is the bridge located within a designated historic district? Yes X No _____

National Register-listed district X National Register-determined-eligible district _____

Locally-designated district _____ Other _____

Name of district Dickeyville National Register Historic District

BRIDGE TYPE:

Timber Bridge _____:

Beam Bridge _____ Truss -Covered _____ Trestle _____ Timber-And-Concrete _____

Stone Arch Bridge _____

Metal Truss Bridge _____

Movable Bridge _____:

Swing _____

Vertical Lift _____

Bascule Single Leaf _____

Retractable _____

Bascule Multiple Leaf _____

Pontoon _____

Metal Girder _____:

Rolled Girder _____

Plate Girder _____

Rolled Girder Concrete Encased _____

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 _____**Describe Setting:**

Bridge BC 2205 carries Forest Park Avenue over Gwynns Falls in Baltimore City. Forest Park Avenue runs east-west and Gwynns Falls flows south. The bridge is located in the west side of the city, and is surrounded by single family homes, many of which are older than 50 years. The bridge is located in the Dickeyville National Register Historic District.

Describe Superstructure and Substructure:

Bridge BC 2205 is a 2-span, 2-lane, concrete arch bridge. The bridge was originally built in 1928. The structure is 108 feet long and has a clear roadway width of 36 feet 4 inches; there are 2 sidewalks measuring 4 feet six inches wide. The superstructure consists of 2 arches that support a concrete deck and pierced concrete parapets. The arches span 54 feet with a clear height of 8 feet. The arches are filled concrete spandrel arches. The concrete deck has a bituminous wearing surface. The roadway approaches have settled. A date plaque on the parapet states that the Baltimore City Bureau of Highways built the bridge in 1928. The substructure consists of 2 concrete abutments and a concrete pier. There are 3 u-shaped wingwalls and 1 flared wingwall. The bridge is not posted, and has a sufficiency rating of 79.4.

According to the 1995 inspection report, this structure was in fair condition with spalling and light deterioration throughout. The asphalt wearing surface is heavily cracked, especially in the westbound lane. The concrete is spalling and has heavy efflorescence at the arches, spandrel walls, and pier. Also, the concrete parapets are spalled in several locations with exposed reinforcement bars.

Discuss Major Alterations:

The spandrel walls were patched and repaired, but the bridge has undergone no major repairs.

HISTORY:**WHEN was the bridge built:** 1928This date is: Actual Estimated _____Source of date: Plaque Design plans _____ County bridge files/inspection form _____ 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? Baltimore City**WHO was the builder?** Baltimore City Bureau of Highways**WHY was the bridge altered?** N/A**Was this bridge built as part of an organized bridge-building campaign?**

There is no evidence that the bridge was built as part of an organized bridge building campaign.

SURVEYOR/HISTORIAN ANALYSIS:**This bridge may have National Register significance for its association with:**

A - Events _____ B- Person _____
C- Engineering/architectural character

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 its arch ring, barrel, spandrel walls, pierced parapets, abutments, wingwalls, and piers. It is also a contributing resource to the Dickeyville National Register Historic District

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 that 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 I.

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. 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 aesthetics 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 that 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 the Dickeyville National Register Historic District and is a contributing element to that district.

Is the bridge a significant example of its type?

This bridge is a good example of a concrete arch bridge, retaining 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 pierced parapets, spandrel walls, abutments, wingwalls, pier, barrel and arch ring, however some deterioration is evident.

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

This bridge is a significant example of the work of the Baltimore City Bureau of Highways.

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

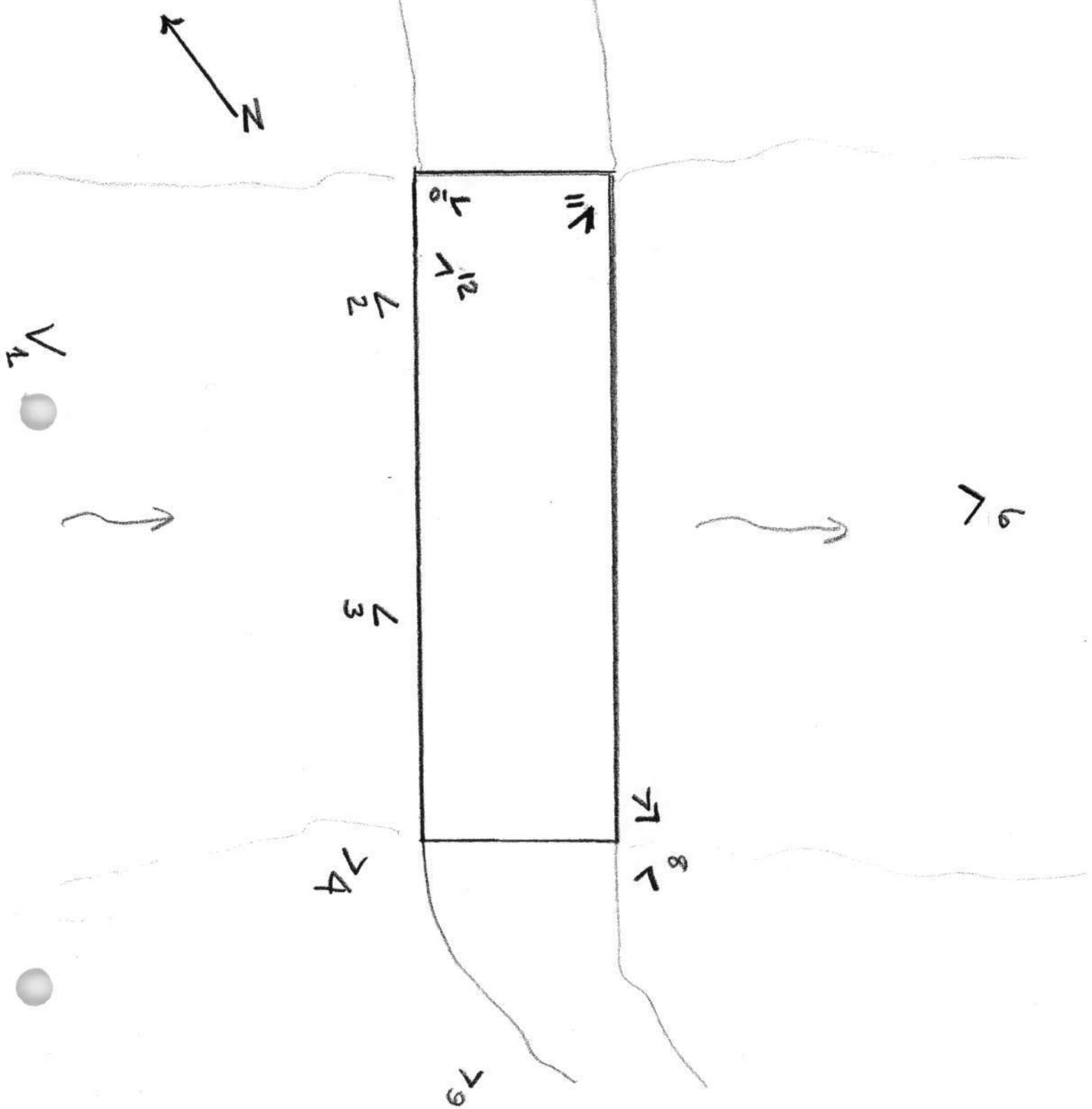
Organization/Address P.A.C. Spero & Co., 40 W. Chesapeake Avenue, Baltimore, MD 21204

Phone number (410) 296-1635 _____ FAX number (410) 296-1670 _____

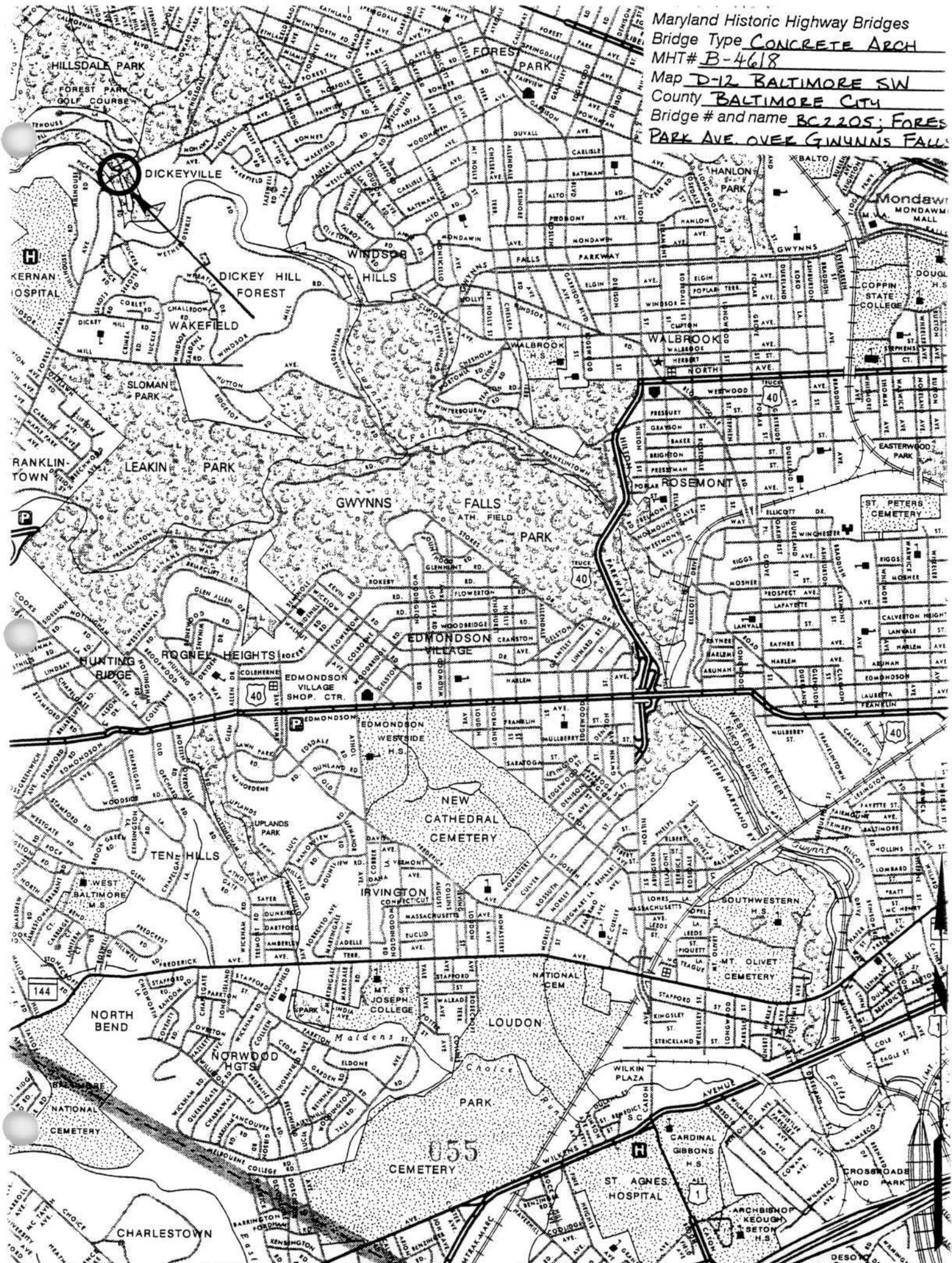
Revised by P.A.C. Spero & Company April 1998

B-4618
Forest Park Ave Bridge
Baltimore City, MD
Bill Lebovich
4/2002

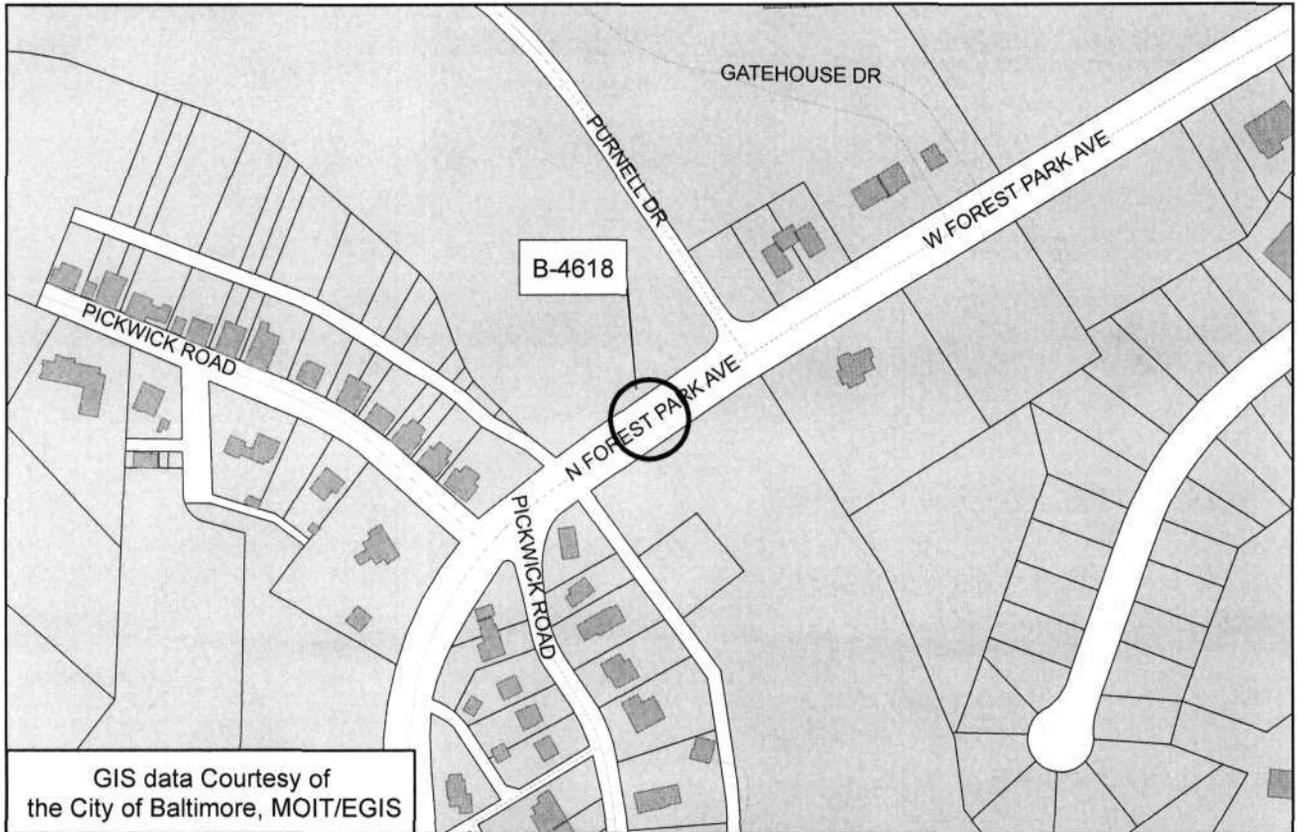
5 ✓ RESOURCE SKETCH MAP



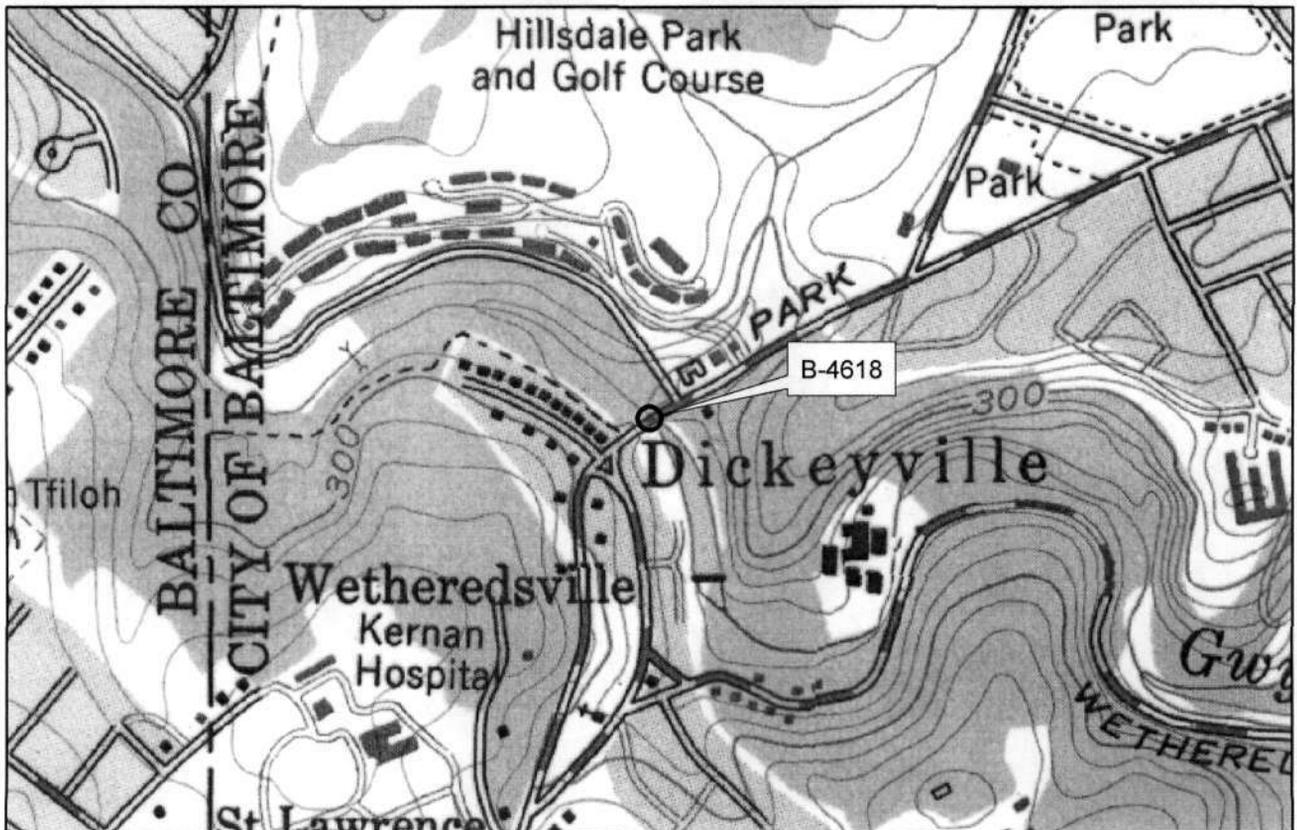
Maryland Historic Highway Bridges
Bridge Type CONCRETE ARCH
MHT# B-4618
Map D-12 BALTIMORE SW
County BALTIMORE CITY
Bridge # and name BC2205; FORES
PARK AVE OVER GWINNS FALLS



B-4618
Bridge BC 2205
Forest Park Avenue over Gwynns Falls
Baltimore City
Baltimore West Quad



GIS data Courtesy of
the City of Baltimore, MOIT/EGIS





Inventory # B-4618

Name 2205- FOREST PARK AVENUE OVER GWYNNS FALLS

County/State BALTIMORE CITY / MARYLAND

Name of Photographer TIM SCHOEN

Date 1/95

Location of Negative SHA

Description EAST APPROACH

Number ~~0~~ of ~~25~~ 1 of 5

U.S. GOVERNMENT PRINTING OFFICE: 1980



Inventory # B-4618

Name 2205-FOREST PARK AVENUE OVER GWYNNS FALLS

County/State BALTIMORE CITY/MARYLAND

Name of Photographer TIM SCHOEN

Date 1/95

Location of Negative SHA

Description WEST APPROACH

Number 9 of 25 2 of 5

BUUREAU OF HIGHWAYS
1928

Inventory # B-4618

Name 2205-FOREST PARK AVENUE OVER GWINNS FALLS

County/State BALTIMORE CITY/MARYLAND

Name of Photographer TIM SHOEN

Date 1/95

Location of Negative SAA

Description IMPRINT@ WEST END OF NORTH
PARAPET

Number ~~10 of 25~~ 3 of 5



Inventory # B-4618

Name 2205-FOREST PARK AVENUE OVER GWYNNS FALLS

County/State BALTIMORE CITY/MARYLAND

Name of Photographer TIM SCHOEN

Date 1/95

Location of Negative SHA

Description NORTH ELEVATION

Number ~~11~~ of ~~25~~ 4 of 5

PHOTOGRAPHY



Inventory # B-4618

Name 2205 - FOREST PARK AVENUE OVER GWYNNS FALLS

County/State BALTIMORE CITY/MARYLAND

Name of Photographer TIM SCHDEN

Date 1/95

Location of Negative SHA

Description SOUTH ELEVATION

Number ~~12~~ of ~~25~~ 5 of 5