

Maryland Historical Trust

Maryland Inventory of Historic Properties number: BA-2651

Name: Carls Rolover Amtrak RR (B-0078)

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 <input checked="" type="checkbox"/>	Eligibility Not Recommended <input type="checkbox"/>
Criteria: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	Considerations: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E <input type="checkbox"/> F <input type="checkbox"/> G <input type="checkbox"/> 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>

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

Property/District Name: Earls Road Bridge (Bridge No. 78) Survey Number: BA-2651

Project: Replace Earls Road Bridge Agency: FHWA/Baltimore County

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

Eligibility recommended Eligibility not recommended

Criteria: A B C D Considerations: A B C D E F G None

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

Based on the available information, the Earls Road Bridge, which carries Earls Road over AMTRAK (formerly the B & O) near Chase, in southeastern Baltimore County, is a triple-span, concrete T-beam constructed in 1916. It retains integrity of its character defining elements, lacks major alterations and is in fair condition. The bridge is eligible under Criterion A for its association with the movement to eliminate at-grade railroad and highway crossings prior to the Grade Elimination Act of 1927. The bridge is eligible under Criterion C as a representative example a concrete T-beam bridge from the early part of the 20th century. The Earls Road Bridge was inventoried as part of the statewide inventory of historic bridges undertaken by SHA. In June 1996, the interagency bridge review committee evaluated the bridge and preliminarily determined it to be eligible for the National Register.

Documentation on the property/district is presented in: Project File, Maryland Inventory form BA-2651

Prepared by: Margaret Bishop (KCI) 1995 form, supplemental info by PAC Spero (2/6/97)

Elizabeth Hannold March 5, 1997
Reviewer, Office of Preservation Services Date

NR program concurrence: yes no not applicable
Peter Spero 3/5/97
Reviewer, NR program Date

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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)
- 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
- 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 Adaption

IV. Historic Period Themes:

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

V. Resource Type:

Category: Structure

Historic Environment: Rural

Historic Function(s) and Use(s): Transportation-vehicular

Known Design Source: State Roads Commission

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

MHT NO. BA-2651

NAME AND SHA NO.: B-0078

LOCATION

Road Name and Number: Earls Road over Amtrak Railroad

City/Town: Chase vicinity

County: Baltimore

Ownership: State County Municipal Other

Bridge projects over: Road Railway Water Land

Is bridge located within designated district?: yes 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

Concrete

Concrete Arch Concrete Slab Concrete Beam Rigid Frame

Other Type Name

DESCRIPTION

Describe the Setting:

Bridge B-0078 carries Earls Road over the Amtrack Railroad tracks in Baltimore County. Earls Road runs north and south, while the 4-track-wide railroad corridor follows an east-west direction. 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 by several residences and open fields.

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

Bridge B-0078, a triple-span concrete tee-beam structure, has a total bridge length of 102'-5" and is skewed 19 degrees. The center span measures 35'-6", the south span measures 32'-3", and the north span measures 34'-8". The 22'-5" wide roadway carries two lanes of traffic. The superstructure incorporates four girders, a chamfered parapet topped with a solid aluminum fence, and a bituminous surface. The substructure consists of concrete abutments, wing walls, and two piers.

Details of the bridge's present condition from a 1993 inspection report include hairline cracks on the parapet, numerous failed patch areas on the underside of the deck and tee-beams. Other deficiencies noted in the superstructure include spalls with exposed rebar, minor cracks, honeycombing, and delaminated areas. The substructure exhibits cracking, efflorescence and exposed rebar in the piers, and spalling, cracking and efflorescence in the abutments.

According to county records, this bridge is scheduled for replacement in fiscal year 1998.

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. Nine percent (10) of that total were triple-span bridges; 37 bridges (33%) were multiple span.

Discuss major alterations:

Available documentary evidence indicates that this bridge has not undergone any major alterations. However, it appears that the aluminum fence atop the parapets is not an original feature of the bridge.

HISTORY

When Built: 1916

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

Who Built: State Roads Commission of Maryland

Who Designed: Unknown

Why Altered: N/A

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

This bridge was constructed as part of the movement to eliminate at-grade railroad and highway intersections. This action was later mandated by the Grade Crossing Elimination Act passed in 1927.

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

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

MHT NO. BA-2651

construction of nearly 750 concrete bridges and culverts between 1902 and 1929 in Baltimore 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?

Yes, due to its apparent lack of major alterations and fair condition, this bridge stands as a significant example of its type.

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

Yes, this bridge retains integrity of its character defining elements. Although recent reports indicate that the structure exhibits severe signs of age and wear, including cracking and spalling of the parapets, abutments, and piers, none of these character defining elements has been replaced or removed. The bridge, however, is scheduled for replacement within the next two years.

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.

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

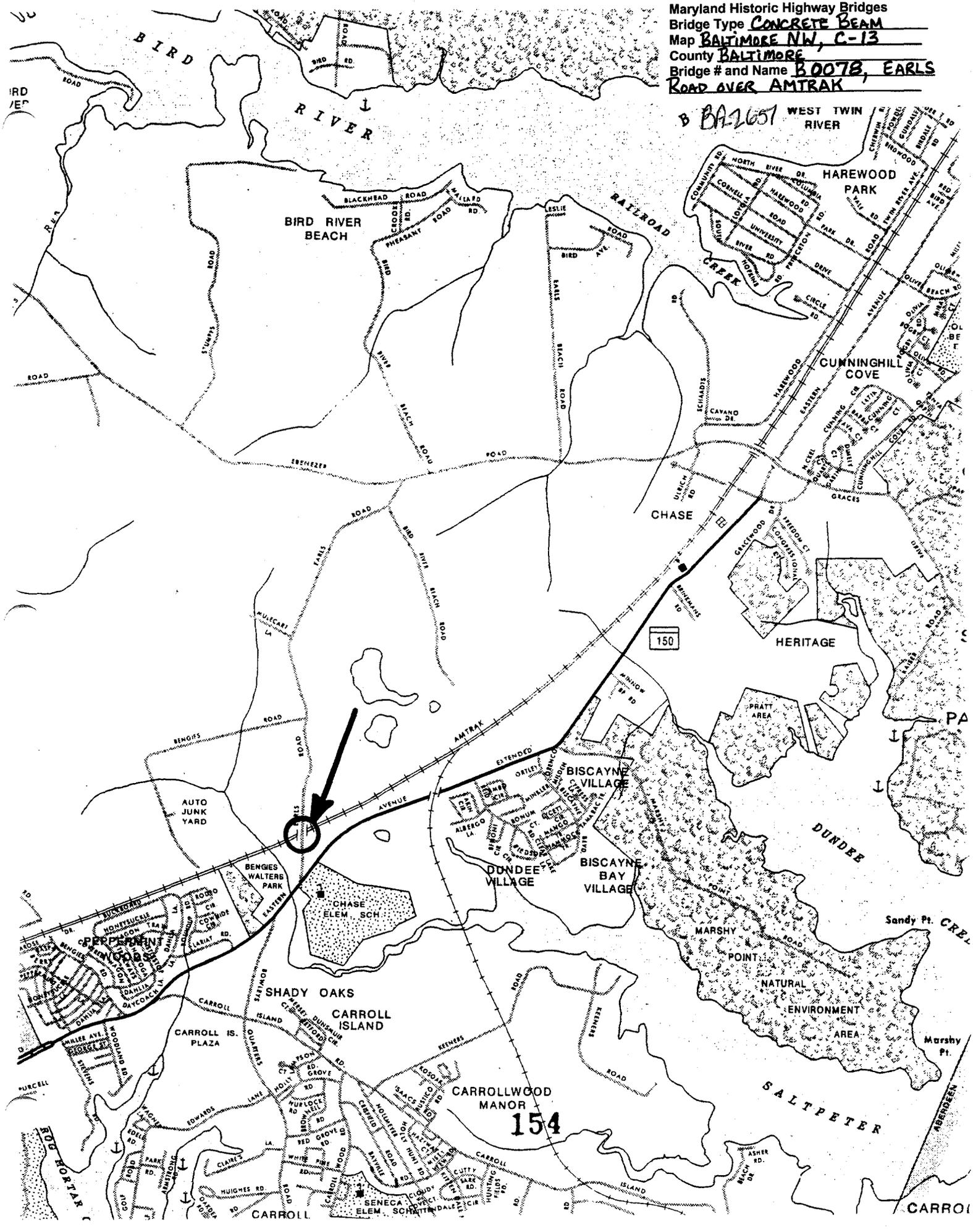
1930 *Reports of the State Roads Commission of Maryland for the Years 1927, 1928, 1929, and 1930*. State of Maryland, State Roads Commission, Baltimore.

SURVEYOR INFORMATION

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Organization: KCI Technologies, Inc.
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Mechanicsburg, PA 17055

Date: 13 May 1996
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Maryland Historic Highway Bridges
Bridge Type CONCRETE BEAM
Map BALTIMORE NW, C-13
County BALTIMORE
Bridge # and Name B0078, EARLS
ROAD OVER AMTRAK





Inventory # BA-2651

Name 130078-EARLS RD OVER AMTRAK

County/State BALTIMORE COUNTY/MD

Name of Photographer DAVE DIEHL

Date 1/95

Location of Negative SHA

Description NORTH APPROACH LOOKING
SOUTH

Number 1 of 394



Inventory # BA-2651

Name BOOTS - EARLS RD OVER AMTRAK

County/State BALTIMORE COUNTY/MD

Name of Photographer DAVE DIEHL

Date 1/95

Location of Negative SHA

Description WEST ELEVATION LOOKING
SOUTHEAST

Number 2 of 374



Inventory # BA-2651

Name BUDTB- EARLS RD OVER AMTRAK

County/State BALTIMORE COUNTY / MD

Name of Photographer DAVE DIEHL

Date 1/95

Location of Negative SHA

Description EAST ELEVATION LOOKING
SOUTHWEST

Number 3 of 379



Inventory # BA-2651

Name B0078-EARLS RD OVER AMTRAK

County/State BALTIMORE COUNTY/MD

Name of Photographer DAVE DIEHL

Date 1/95

Location of Negative SHA

Description SOUTH APPROACH LOOKING

NORTH

Number 4 of 39 4