Maryland Historical Trust

Maryland Inventory of Historic Properties number: ~~BA-2734~~ BA-1139

Name: WARREN RD. OVER LOCH RAVEN RESERVOIR

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

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

MHT No. ~~BA-2734~~

SHA Bridge No. BC 6510 **Bridge name** Warren Road over Loch Raven Reservoir

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

City/town Cockeysville **Vicinity** x

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 ____ **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 x

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 ____:
Concrete Arch ____ **Concrete Slab** ____ **Concrete Beam** ____ **Rigid Frame** ____
Other ____ **Type Name** ____

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DESCRIPTION:
Setting: Urban _____ **Small town** _ **Rural** x
Describe Setting:

Bridge BC6510 carries Warren Road over Loch Raven Reservoir approximately 2-1/4 miles east of York Road in the vicinity of Cockeysville. Warren Road runs generally in a north/south direction in the area while Gunpowder Falls flows to the east. The bridge is situated within the Loch Raven Reservoir. The area is relatively undeveloped with no buildings around the bridge.

Describe Superstructure and Substructure:

Bridge BC6510 is a three span, Parker through truss measuring 624 feet in total length. The endposts are vertical. Each span has 9 panels. The top chord is a built-up section of 2 channels with cover plate and lattice bars. The bottom chord consists of rolled sections. The floor system has I-beam stringers and floorbeams. The verticals consist of 2 channels with lacing bars. The end diagonals are rivetted paired angle sections and other diagonals consist of angles and lacing bars. All connections are rivetted with gusset plates. The clear width of the roadway is 20'-0". There is no sidewalk on the bridge and the truss members are protected by a rivetted guardrail consisting of angles and lattice bars. The bridge crosses the stream at a 90 degree alignment. The abutments and wingwalls are concrete. There are also ornamental, panelled concrete parapets on the approaches to the truss spans. There are two plaques on the bridge, one identifying the builder as the Phoenix Bridge Company of Phoenixville PA, and construction date as 1922. The portals have a plaque showing "Baltimore City".

Discuss Major Alterations:

Baltimore City inspection files note that the stringers were replaced and the floorbeams were repaired sometime prior to 1995.

HISTORY:

WHEN was the bridge built 1922
This date is: Actual X **Estimated** _____
Source of date: Plaque X **Design plans** ____ **County bridge files/inspection form** _____
Other (specify): __

WHY was the bridge built?

The bridge was built as part of the enlargement of the Loch Raven reservoir. A new dam, north of the original 1881 dam, was completed in 1922 to elevate the water level to 240 feet and increase the water supply available to the city of Baltimore. (See significant events, below). Bridge BC6510 was built to carry Warrren Road over the reservoir which resulted from building the dam. Historic maps show that Warren Road crossed the Gunpowder Falls (at that time a narrow stream) at about the same location prior to the dam's flooding of the area.

WHO was the designer?

Unknown

WHO was the builder?

Phoenix Bridge Company of Phoenixville, Pennsylvania.

WHY was the bridge altered?

To maintain the load carrying capacity of the bridge.

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

Bridge BC 6510 was built as part of the Loch Raven reservoir enlargement, a City of Baltimore water supply expansion project.

SURVEYOR/HISTORIAN ANALYSIS:

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

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

Loch Raven Reservoir is part of the water supply system of the City of Baltimore. Up until the middle of the nineteenth century water was furnished to the city by the Baltimore City Water Company which brought the water from the Jones Falls.

As early as 1836, the Gunpowder Falls was considered as a new source of city water, suggested by John Randall, a civil engineer. In 1854, plans began for this expansion with the purchase of the Baltimore Water Company by the City of Baltimore. After studying the Gunpowder, it was determined that the most suitable place to tap the water supply was at a point on the estate of Robert Gilmore (Glen Ellen) called Ravens Rock (hence, the name Loch Raven).

In 1866, Mayor John Lee Chapman, also head of the Water Department, received permission to buy land around Loch Raven. In 1874, an ordinance was passed creating a permanent water supply for the City of Baltimore at Loch Raven. Construction of the dam and waterworks began in 1875 and was competed in 1881. The water supply system consisted of the dam and reservoir at Loch Raven, and a tunnel for delivering water to two distributing reservoirs: Lake Montebello and Lake Clifton.
The water supplied by Loch Raven and Jones Falls was adequate for Baltimore until the first decade of the twentieth century. A new Loch Raven dam was started in 1912, however the city had difficulty acquiring land needed in order to raise the elevation of the new dam to the desired 240 feet. It was not until 1922 that all of the required property had been bought and annexed. Along with the crossroads of Warren, Bosley and Sweet Air, the little town of Warren was the principal purchase of the city. Warren, a company town of the Summerfield Baldwins Manufacturing Company, was sold to the city for one million dollars.

The upper dam at Loch Raven was completed in 1922. A new tunnel was built to link up with the old one. Water travels through this tunnel, which is 12 feet in diameter and 7 miles long, to the Montebello filtration plant.

Bridge BC6510 was built in 1922 to carry Warren Road across the reservoir. Historic maps of the area indicate that Warren Road was upgraded to the east of the crossing as part of this building campaign.

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?

The bridge and the newly extended Warren Road facilitated access to the area east of the Gunpowder Falls. Loch Raven Reservoir is both a municipal water supply and a recreational area, providing areas for fishing, boating, hiking and picnicking. This bridge has facilitated access to the reservoir area and promoted growth of the area as a whole.

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?

The Loch Raven Reservoir area may be eligible for historic designation, and the bridge would add to both the historic and visual character of the potential district.

Is the bridge a significant example of its type?

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The bridge is an unusual example of a through truss with vertical endposts.

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

Bridge BC6510 retains integrity of location, design, setting, materials, workmanship, feeling and association. It possesses integrity of its major components.

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

The bridge is a significant example of the nationally prominent Phoenix Bridge Company of Phoenixville, Pennsylvania.

Should the bridge be given further study before an evaluation of its significance is made?

No further study is necessary in order to evaluate the significance of this bridge.

BIBLIOGRAPHY:

County inspection/bridge files _ **SHA inspection/bridge files**
Other (list): Baltimore City inspection/bridge files

County survey files of the Maryland Historical Trust

Baltimore County Historical Society files

Baltimore County Library vertical files

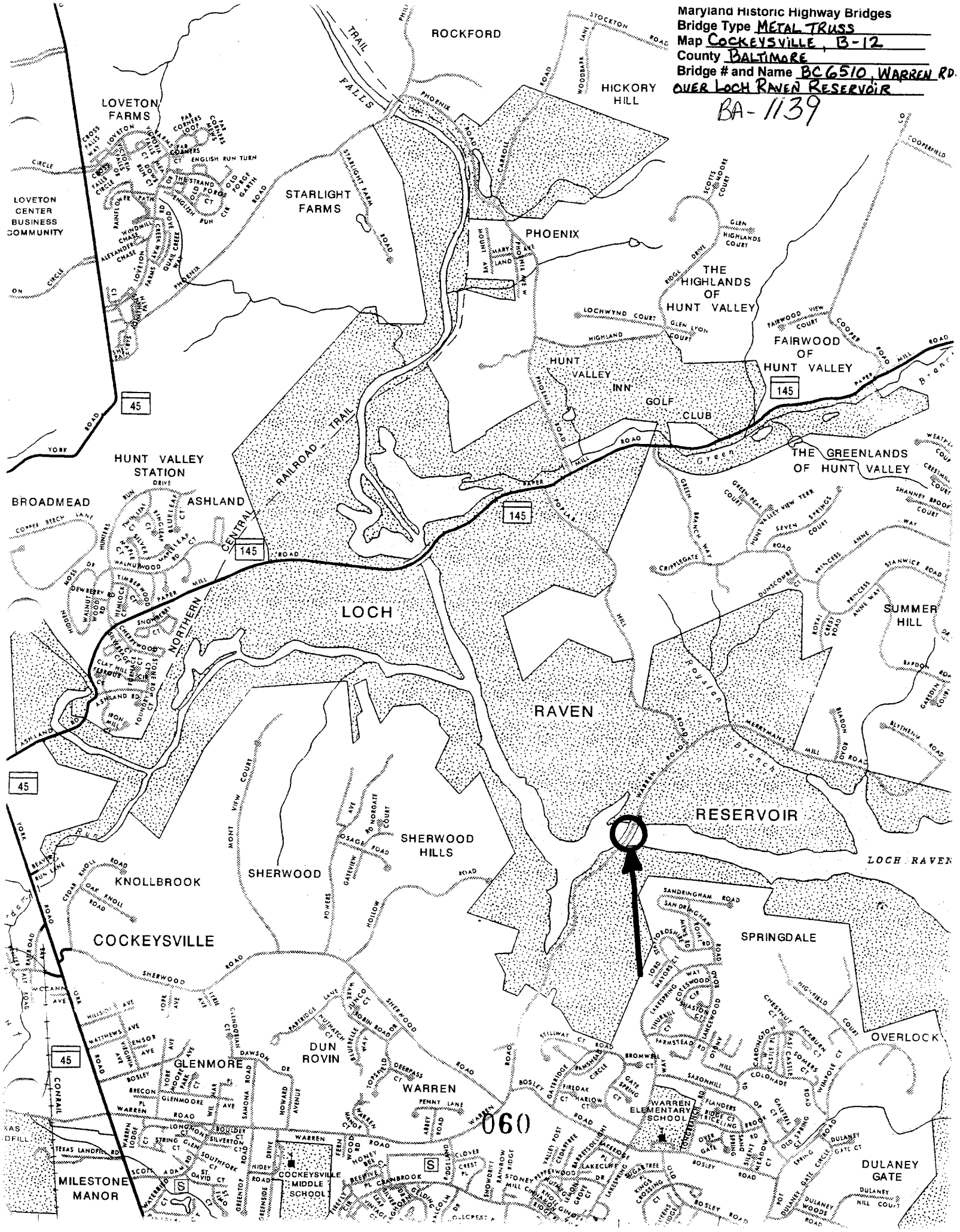
P.A.C. Spero & Company and Louis Berger & Associates, *Historic Highway Bridges in Maryland: Historic Context Report.* Prepared for the Maryland State Highway Administration.

SURVEYOR:

Date bridge recorded January 1996

Name of surveyor P.A.C.Spero/C.R.Farr
Organization/Address P.A.C. Spero & Co., 40 W. Chesapeake Avenue, Suite 412, Baltimore, Maryland 21204
Phone number 410-296-1635 **FAX number** 410-296-1670

Maryland Historic Highway Bridges
Bridge Type METAL TRUSS
Map COCKEYSVILLE, B-12
County BALTIMORE
Bridge # and Name BC6510, WARREN RD. OVER LOCH RAVEN RESERVOIR
BA-1139



10 EAST ELEVATION 3

1 BA-1139

2 Warren Road over Loch Raven Reservoir

3 Baltimore City

4 Colin Farr

5 February 1996

6 PAC Spero and Company, Towson MD

7 Warren Rd over Loch Raven Reservoir, 21204

8 1 of 9 east elevation

BC 6510 SOUTH APPROACH 17

1 BA-1439

2 Warren Road over Loch Raven Reservoir

3 Baltimore Co.

4 Colin Farr

5 February 1996

6 PAC Spero and Company, Towson MD 21204

7 Warren Road over Loch Raven Reservoir, South approach

8 2 of 9

BCL510 NORTH PORTAL 9

1 BA-7139

2 Warren Road over Loch Raven Reservoir

3 Baltimore City

4 Colin Faux

5 Feb. 1996

6 PAC Spaw and Company, Towson MD 21204

7 Warren Road over Loch Raven Reservoir, north portal

8 3 of 9

BC 6510 STR R RTAL 20

1 BA-1139

2 Warren Road over Loch Raven Reservoir

3 Baltimore Co.

4 Colin Farr

5 Feb. 1996

6 PAC Spero and Company, Towson MD 21204

7 Warren Road over Loch Raven Reservoir
South portal

8 4 of 9

AC 650 END POST & DIAGONAL 12

1 BA-1139

2 Warren Rd. nr. Loch Raven Reservoir

3 Baltimore City

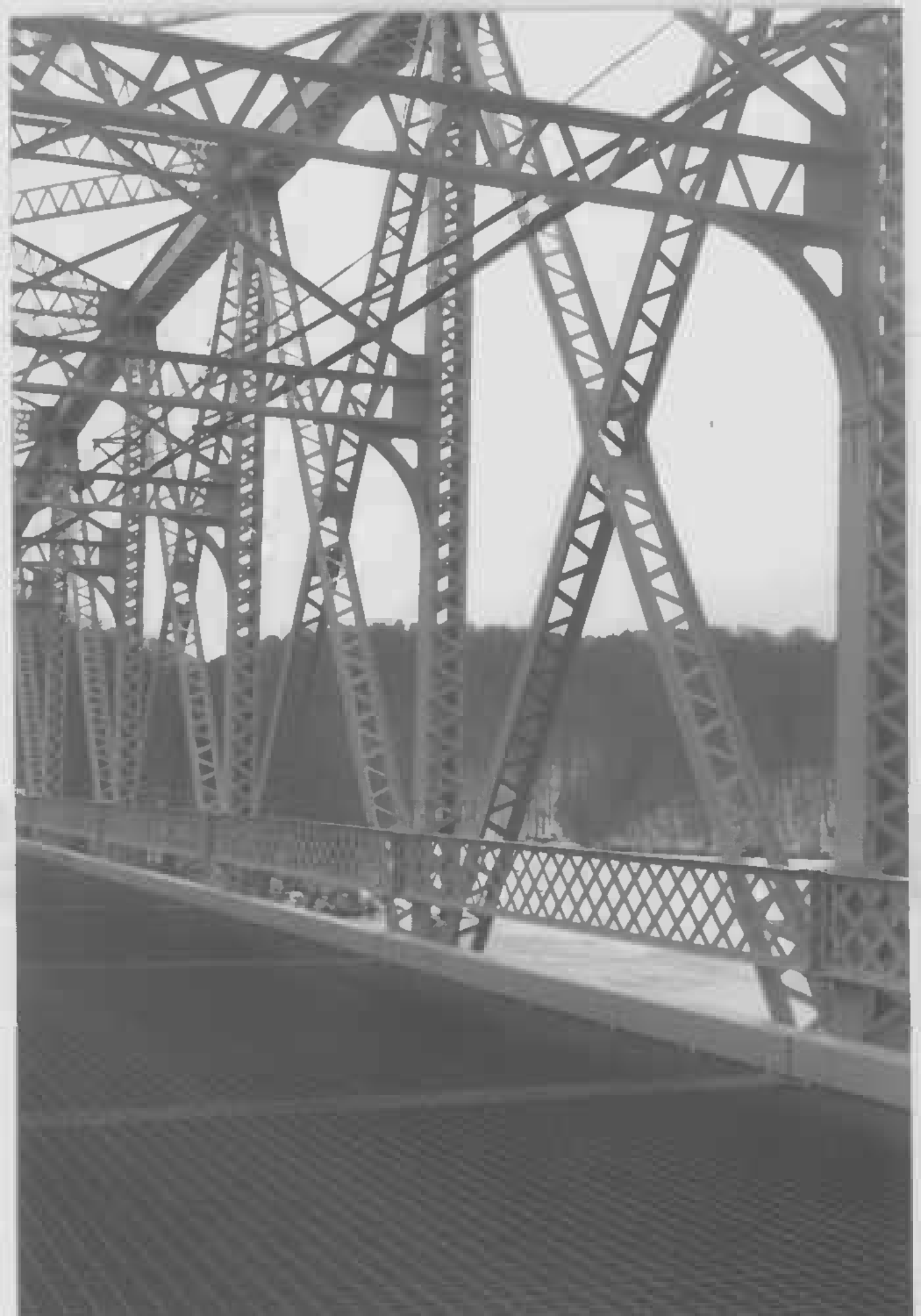
4 Colin Farr

5 February 1996

6 PAC Spew and Company. Towson MD 21204

7 Warren Rd nr. Loch Raven Reservoir, end post and diagonal

8 5 of 9



Ac 6510 ~~[illegible]~~ 13

TRUSS MEMBERS

1 BA-7139

2 Warren Road over [illegible]

3 [illegible] City

4 Colin Farr

5 Feb. 1996

6 PAC Spaw and Company Truss Ltd 21704

7 Warren Rd over lock [illegible] Reservoir, truss members

8 6 of 9

BC 2510 GUARDRAIL DETAIL 10

1 BA-1139

2 Warren Rd over Loch Raven Reservoir

3 Baltimore City

4 Colin Farr

5 February 1996

6 PAC Spero and Company, Towson MD 21204

7 Warren Rd. over Loch Raven Reservoir, guardrail detail

8 1 of 9

BC C570 LOWER CHORD, JOINT, 8

1 BA-1139 FLOOR SYSTEM

2 Warren Rd over Loch Raven Reservoir

3 Baltimore City

4 Colin Fan

5 Feb. 1996

6 PAL Space and Company, Towson MD 21204

7 Warren Rd over Loch Raven Reservoir,

8 8 of 9 lower chord joint, floor system

BC 6510 NORTH PORTAL 5

1 BA-1139 LOWER END JOINT, BEARING AND ABUTMENT

2 Warren Rd over Loch Raven Reservoir

3 Baltimore City

4 Colin Fan

5 Feb. 1996

6 PAC Spewand Company, Towson MD 21204

7 Warren Rd over Loch Raven Reservoir, north portal, lower end joint, bearing and abutment

8 9 of 9