Maryland Historical Trust

Maryland Inventory of Historic Properties number: M:12-48.

Name: 15070 / MD 109 OVER BR. OF LITTLE MONOCACY RIVER

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 __X____

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. M:12-48

SHA Bridge No. 15070 Bridge name MD 109 over Branch of Little Monocacy River

LOCATION:
Street/Road name and number [facility carried] MD 109

City/town Barnesville Vicinity X

County Montgomery

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 _____

WHY was the bridge altered?
The bridge was altered to repair damage that resulted from an automobile accident. Subsequent alterations were made to extend the life of the bridge.

Was this bridge built as part of an organized bridge-building campaign?
Yes, post World War I improvements to primary and secondary roads.

SURVEYOR/HISTORIAN ANALYSIS:

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

This bridge doas not have National Register significance.

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 1903-1904 with the formation of the Joint Committee on Concrete and Reinforced Concrete of the American Society of Civil Engineers.

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 Commissions 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 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 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 II.

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?
Although built during the post World War I construction phase, this bridge did not greatly effect the area surrounding it. The structure did not increase settlement or industry.

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 is eligible for historic designation.

DESCRIPTION:

Setting: Urban _____ **Small town** _____ **Rural** ____X_____

Describe Setting: Bridge No. 15070 carries MD 109 over Branch of Little Monocacy River. MD 109 runs north-south, while Branch of Little Monocacy River flows northwest to southeast. The bridge is located in a rural section of Montgomery County and is surrounded by farmland.

Describe Superstructure and Substructure:

Bridge No. 15070 over Branch of Little Monocacy River is a single span standard concrete slab built in 1926. The span length is 20 feet, the total bridge length is 23 feet, and the clear roadway width is 24 feet between the curbs. The bridge is not currently posted. The superstructure, consisting of the roadway, the slab and the parapets, is in poor condition. The roadway has 8-1/2" of bituminous surface overlay which sounds hollow 3" out from both parapets. The slab is in poor condition. A 1959 automobile accident caused several structural problems, including the slab shifting 6" to the north. The underside of the deck has heavy map and irregular cracking, with efflorescence and random hollow areas. The south slab/abutment intersection has a large spall, 4 feet in diameter and 6" deep, with exposed and deteriorated rebars and 2 feet of hollow sounding areas around it. A 1/8" wide longitudinal crack runs down the centerline of the slab, from the spall to the north abutment. The northwest end of the solid, ornamented parapet was replaced after the 1959 accident. W-beam guardrails were added to the parapet walls in 1991 and are bolted through the walls.

The substructure consists of the abutments and wingwalls. The concrete abutment footings and faces are heavily eroded and spalled. The wingwalls have fine diagonal cracks on the faces. The northeast wingwall has a 1/8" diagonal crack extending downward from the slab. The inspection report considered this crack to be the result of the shifting slab.

Discuss Major Alterations:

Bridge No. 15070 has had several major alterations since a 1959 automobile accident. In September 1959, the northwest end of the parapet was replaced, as well as the faces of the northeast, northwest and southwest wingwalls. In 1991 w-beam guardrails were placed across the bridge and bolted to the parapets. Also in 1991, the southeast and northwest wingwalls were repaired. Dowels were placed in the walls halfway between the front and rear faces, with new concrete cast-in-place on the front face. Rip rap protection, in the form of grout bags, were then placed along the wingwalls and abutments.

HISTORY:

WHEN was the bridge built: 1926

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

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

Other (specify) _____

WHY was the bridge built?

Maryland's primary and secondary roads and bridges had become inadequate to the huge freight trucks and volume of passenger cars in use.

WHO was the designer?

State Roads Commission

WHO was the builder?

State Roads Commission

M:12-48

Is the bridge a significant example of its type?
No, this structure is not a significant example of its type. The character defining elements are either in a deteriorated state or they are not present in their original form.

Does the bridge retain integrity of important elements described in Context Addendum?
No, this structure does not retain the integrity of its original design because it has been altered and its character defining elements have been replaced.

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

Should the bridge be given further study before an evaluation of its significance is made?
No this bridge should not be given further study. Although it reflects the state's post war construction needs of an expanding secondary roads system, it current condition has placed its integrity in doubt.

BIBLIOGRAPHY:

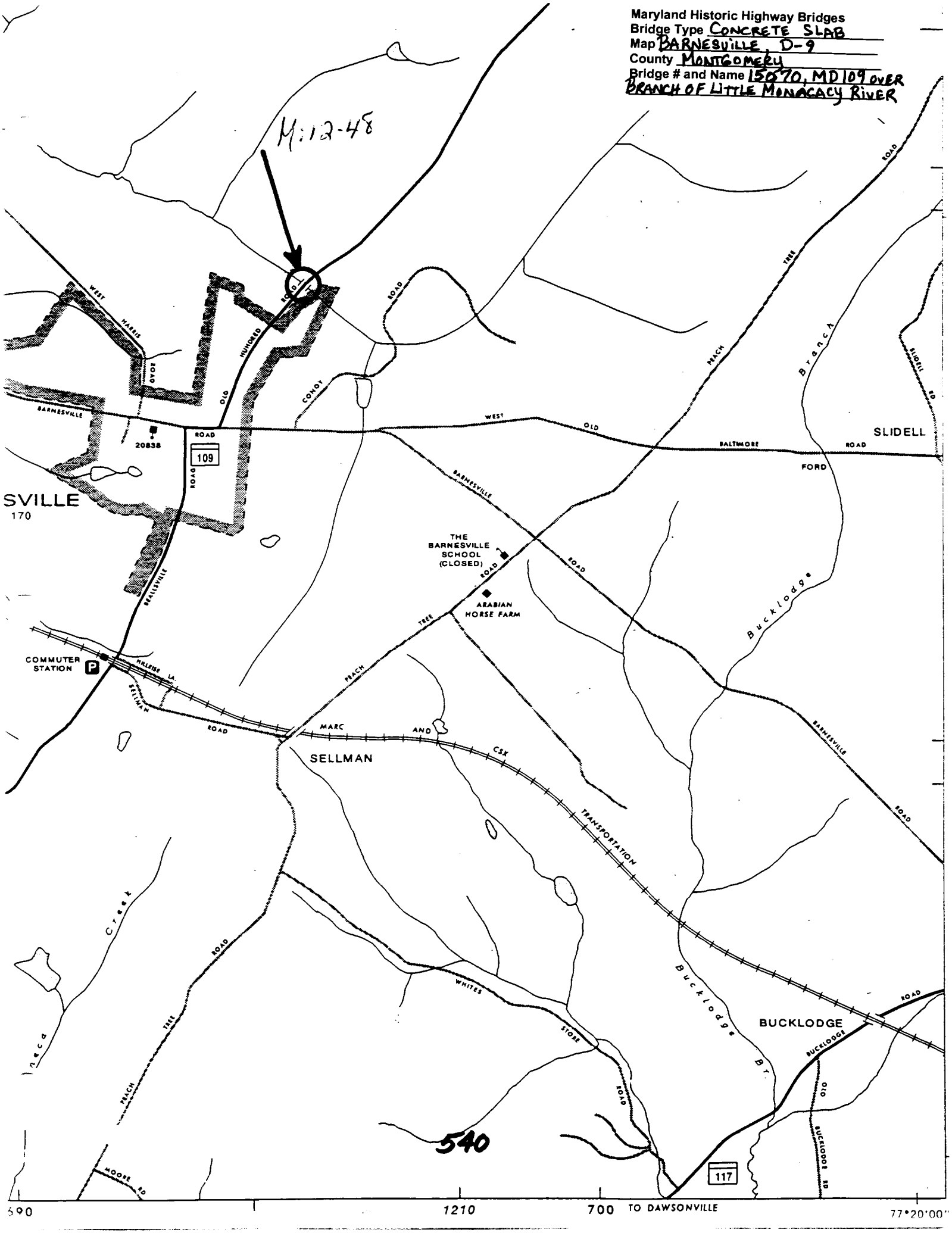
County inspection/bridge files _____ **SHA inspection/bridge files** X
Other (list):

SURVEYOR:

Date bridge recorded 8/95

Name of surveyor Leo Hirrell
Organization/Address P.A.C. Spero & Company, 40 W. Chesapeake Avenue, Suite 412, Baltimore, MD 21204
Phone number (410) 296-1635 **FAX number** (410) 296-1670

Maryland Historic Highway Bridges
Bridge Type CONCRETE SLAB
Map BARNESVILLE D-9
County MONTGOMERY
Bridge # and Name 15070, MD 109 OVER BRANCH OF LITTLE MONOCACY RIVER



Inventory # M:12-48

Name 15070 - MD RT 109 OVER BR ~~OVER~~ OF LITTLE MONOCACY RIVER

County/State MONTGOMERY / MD

Name of Photographer FRANK JULIANO

Date 2/95

Location of Negative SHA

Description APPROACH NORTH

Number 1 ~~39~~ of 4 ~~36~~

Inventory # M:12-48

Name 15070 - MD RT 109 OVER BRANCH OF ~~OVER~~ LITTLE MONOCACY RIVER

County/State MONTGOMERY / MD

Name of Photographer FRANK JULIANO

Date 2/95

Location of Negative SHA

Description ELEVATION WEST

Number ~~3~~ 2 of ~~36~~ 4

Inventory # M:12-48

Name 15070- MD RT 109 OVER BRANCH OF LITTLE MONOCACY RIVER

County/State MONTGOMERY / MD

Name of Photographer FRANK JULIANO

Date 2/95

Location of Negative SHA

Description ELEVATION EAST

Number ~~30~~ 3 of ~~30~~ 4

Inventory # M-12-48

Name 15070- MD RT 109 OVER BRANCH OF LITTLE MONOCACY RIVER

County/State MONTGOMERY / MD

Name of Photographer FRANK JULIANO

Date 2/95

Location of Negative SHA

Description SOUTH APPROACH

Number ~~2~~ 4 of ~~36~~ 4

Montgomery

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

M: 12-48

Property/District Name: Bridge #15070 Survey Number: ~~HE~~

Project: MD 109 over Branch of Little Monocacy River Agency: SHA

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

Eligibility recommended _____ Eligibility **not** recommended X

Criteria: ___A ___B X C ___D Considerations: ___A ___B ___C ___D ___E ___F ___G ___None

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

According to information prepared by SHA, Bridge #15070, a 20' concrete slab structure constructed in 1926, does not meet the National Register Criteria for individual listing. Simple concrete slab bridges were common by the 1920s and Bridge #15070 has no particular historical or engineering significance. Numerous examples of similar bridges remain in the state. Bridge #15070 is not located in any known district.

Documentation on the property/district is presented in: Project file

Preparedby: RitaSuffness

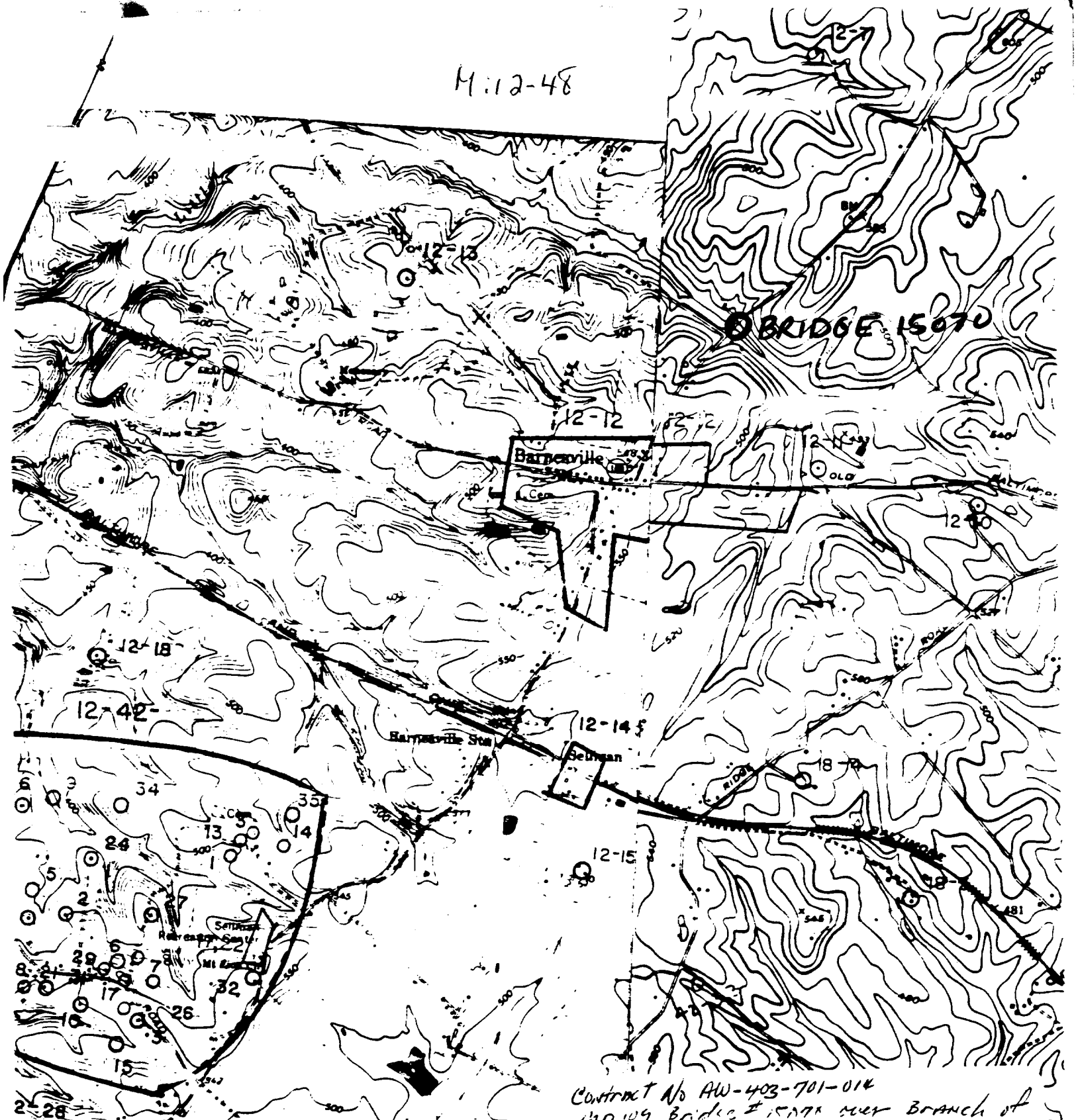
Elizabeth Hannold — March 2, 1992
Reviewer, Office of Preservation Services — Date

NR program concurrence: X yes ___ no ___ not applicable

[signature] — 3-2-92
Reviewer, NR program — Date

DT

M:12-48



Contract No AW-403-701-014
MD 109 Bridge # 15070 over Branch of
Little Monocracy River
Montgomery County, Maryland
Proposed Improvement: Placing Grout Bags (6 wide)
Along All four wingwalls and the entire
length of both Abutments.

Historic