MARYLAND HISTORICAL TRUST
NR-ELIGIBILITY REVIEW FORM

Property Name: Bridge No. 4022 Inventory Number: ~~CT-1187~~ CT-1210

Address: Mt. Harmony Road over MD 260

Owner: Maryland State Highway Administration, 707 N. Calvert St. Baltimore, MD 21202

Tax Parcel Number: N/A Tax Map Number: 7

Project Reconstruction of MD 260/Mt. Harmony Agency State Highway Administration (SHA)

Site visit by SHA Staff: __ no X yes Name: Heather Confer Date: 12/27/1999

Eligibility recommended __ Eligibility **not** recommended X

Criteria __A __B __C __D Considerations: __A __B __C __D __E __F __G X None

Is property located within a historic district? X no __ yes Name of District: _____

Is district listed?: X no __ yes

Documentation on the property/district is presented in: Project Review and Compliance Files, Historic Bridge Inventory

Description of Property and Eligibility Determination *(Use continuation sheet if necessary and attach map and photo)*

Bridge No. 4022 is a three span steel beam bridge built in 1933. It has a length of 120 ft and clear roadway width of 30 ft. The superstructure consists of nine rolled steel beams that support the concrete deck and concrete parapets. The parapets exhibit the open pierced design of the 1930 standard plan. In 1996 some of these parapets were encased in concrete or replaced with solid concrete sections affecting the appearance of the bridge. There is also W-beam guardrail attached to the inside edge of the parapets for their entire length. The interagency review committee determined that Bridge No. 4022 was not National Register eligible due to its loss of integrity and SHA maintains this determination.

Bridge No. 4022 lacks significance related to events, persons, or architecture and engineering and is unlikely to yield any information not found elsewhere. It is therefore not eligible for National Register listing under Criterion A, B, C, or D.

Prepared by Heather Confer

MARYLAND HISTORICAL TRUST REVIEW

Eligibility recommended __ **Eligibility not recommended X**

Criteria: __ A __ B __ C __ D **Consideration __ A __ B __ C __ D __ E __ F __ G __ None**

_____ 4/5/2000

Reviewer, Office of Preservation Services **Date**

_____ 5/17/00

Reviewer, NR Program **Date**

Inventory No. CT-[redacted]-1210

PRESERVATION VISION 2000; THE MARYLAND PLAN
STATEWIDE HISTORIC CONTEXTS

I. Geographic Region:

___	Eastern Shore	(all Eastern Shore counties, and Cecil)
_X_	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:

___	Rural Agrarian Intensification	A.D. 1680-1815
___	Agricultural-Industrial Transition	A.D. 1815-1870
___	Industrial/Urban Dominance	A.D. 1870-1930
_X_	Modern Period	A.D. 1930- Present
___	Unknown Prehistoric	
___	Unknown Historic	

IV. Historic Period Themes:

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

V. Resource Type:

Category: Structure
Historic environment: Rural
Historic Function(s) and Use(s): Transportation

Known Design Source: Maryland State Roads Commission

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

MHT No. CT-1210

SHA Bridge No. 4022 **Bridge name** Mount Harmony Road over MD 260

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

City/town Paris **Vicinity** _____

County Calvert

This bridge projects over: Road X **Railway** _____ **Water** _____ **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 X :
Rolled Girder X **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:
Setting: Urban _____ **Small town** ____X____ **Rural** _____

Describe Setting:

Bridge No. 4022 carries Mount Harmony Road over MD 260 (Chesapeake Beach Road East) in Paris, Calvert County. Mount Harmony Road runs east-west and MD 260 extends north-south. The bridge is located in the town of Paris and is surrounded by single family dwellings and wooded areas.

Describe Superstructure and Substructure:

Bridge No. 4022 is a 3-span, 2-lane, metal girder bridge. The bridge was built in 1933, and was altered by repair of the parapets in 1996. The structure is 120 feet long and has a clear roadway width of 30 feet between concrete curbs. The superstructure consists of nine (9) rolled metal girders which support a concrete deck and concrete parapets. The exterior girders are encased in concrete. The roadway is carried on the girders and has a bituminous wearing surface. The structure has pierced parapets; several sections of the pierced parapet have been patched with concrete creating solid parapet walls. The substructure consists of two (2) concrete abutments and two (2) intermediate concrete piers. The bridge has a sufficiency rating of 81.0.

According to the 1996 inspection report, this structure was in fair condition with spalling, cracking and minimal section loss. The asphalt wearing surface was newly resurfaced while the deck has concrete patches covering approximately 75% of the surface. In addition, the deck has minor spalling spots and cracking. The concrete parapet is deteriorating with medium to heavy scaling on the balustrade. The concrete encasement of the exterior girders has been removed in areas, exposing the steel. Both the interior and exterior girders have moderate rusting. The underside of the deck between the girders has been covered with an epoxy.

Discuss Major Alterations:

Several sections of the parapet walls were repaired in 1996. The repairs included the encasement of a parapet section with concrete or the replacement of a section with a solid concrete section. Therefore the bridge has a combination of original open and solid concrete parapets.

HISTORY:

WHEN was the bridge built: 1933
This date is: Actual X **Estimated** _____
Source of date: Plaque _____ **Design plans** ____ **County bridge files/inspection form**
Other (specify): State Highway Administration bridge files/inspection form

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?

Unknown

WHO was the builder?

Unknown

WHY was the bridge altered?

The bridge was altered to correct functional or structural deficiencies.

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

Unknown

SURVEYOR/HISTORIAN ANALYSIS:

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

The bridge does not have National Register significance.

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

Metal girder bridges were most likely introduced and first popularized in Maryland by the state's major railroads of the nineteenth century including the Baltimore and Susquehanna, its successor the Northern Central, and the Baltimore and Ohio Railroad. Bridge engineering historians have documented the fact that James Milholland (or Mulholland) erected the earliest plate girder span in the United States on the Baltimore and Susquehanna Railroad in 1846 at Bolton Station, near present-day Mount Royal Station. The sides (web) and bottom flange of Milholland's 54-foot-long span were wholly of wrought iron and included a top flange reinforced with a 12x12-inch timber. Plates employed in the bridge were 6 feet deep and 38 inches wide, giving the entire bridge a total weight of some 14 tons. Milholland's pioneering plate girder cost $2,200 (Tyrrell 1911:195). By December 31, 1861, the Northern Central Railroad, which succeeded the Baltimore and Susquehanna, maintained an operating inventory in Maryland of 50 or more bridges described simply as "girder" spans, in addition to a number of Howe trusses. Most of these were probably iron girder bridges; the longest were the 117-foot double-span bridge over Jones Falls and the 106-foot double-span girder bridge at Pierce's Mill (Gunnarson 1990:179-180).

As in the nation, girder bridge technology in Maryland was quickly adapted to cope with the increasingly heavy traffic demands of the twentieth century caused by automobile and truck traffic. The 1899 Maryland Geological Survey report on highways noted that "there are comparatively few I-beam bridges, one of the cheapest and best forms for spans less than 25 or 30 feet" (Johnson 1899:206). Interestingly, the report also urged construction of a composite metal, brick, and concrete bridge, noting that "no method of construction is more durable than the combination of masonry and I-beams, between which are transverse arches of brick, the whole covered with concrete, over which is laid the roadway" (Johnson 1899:206). Whether any such bridges (transitional structures between I-beams and reinforced concrete spans) were built is unknown.

Official state and county highway reports—issued between 1900 and the early 1920s through the Highway Division of the Maryland Geological Survey and its successor, the State Roads Commission—generally do not reference or describe girder construction. An analysis of the current statewide listing of county and municipal bridges (a listing maintained by the State Highway Administration) reveals that 48 county bridges, out of the total of 141 approximately dated to "1900"

by county engineers, were listed as steel girder, steel stringer, or variants of such terms. (It should be noted that the "1900" date is often given when no exact date is pinpointed for a bridge that is clearly old). A grand total of 200 bridges (including "steel culverts"), out of 550 bridges dated on the county list between 1901 and 1930, were described as steel beam, steel girder, or steel stringer and girder varieties. The total suggests that among the various highway bridge types built in the early twentieth century metal girder bridges in Maryland between 1900 and 1930 were second in popularity only to reinforced concrete bridges. However, these numbers must be interpreted with caution, as they do not necessarily include all county and municipal bridges.

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 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 bridge is located in an area which does not appear to be eligible for historic designation.

Is the bridge a significant example of its type?

A significant example of a metal girder bridge should possess character-defining elements of its type, and be readily recognizable as an historic structure from the perspective of the traveler. The integrity of distinctive features visible from the roadway approach, including parapet walls or railings, is important in structures which are common examples of their type. In addition, the structure must be in excellent condition. This bridge, which lacks the integrity of such features as the parapets, is an undistinguished example of a metal girder bridge.

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 rolled metal girders, abutments and piers, however some deterioration is evident.

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

This bridge is not a significant example of the work of a manufacturer, designer, and/or engineer.

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

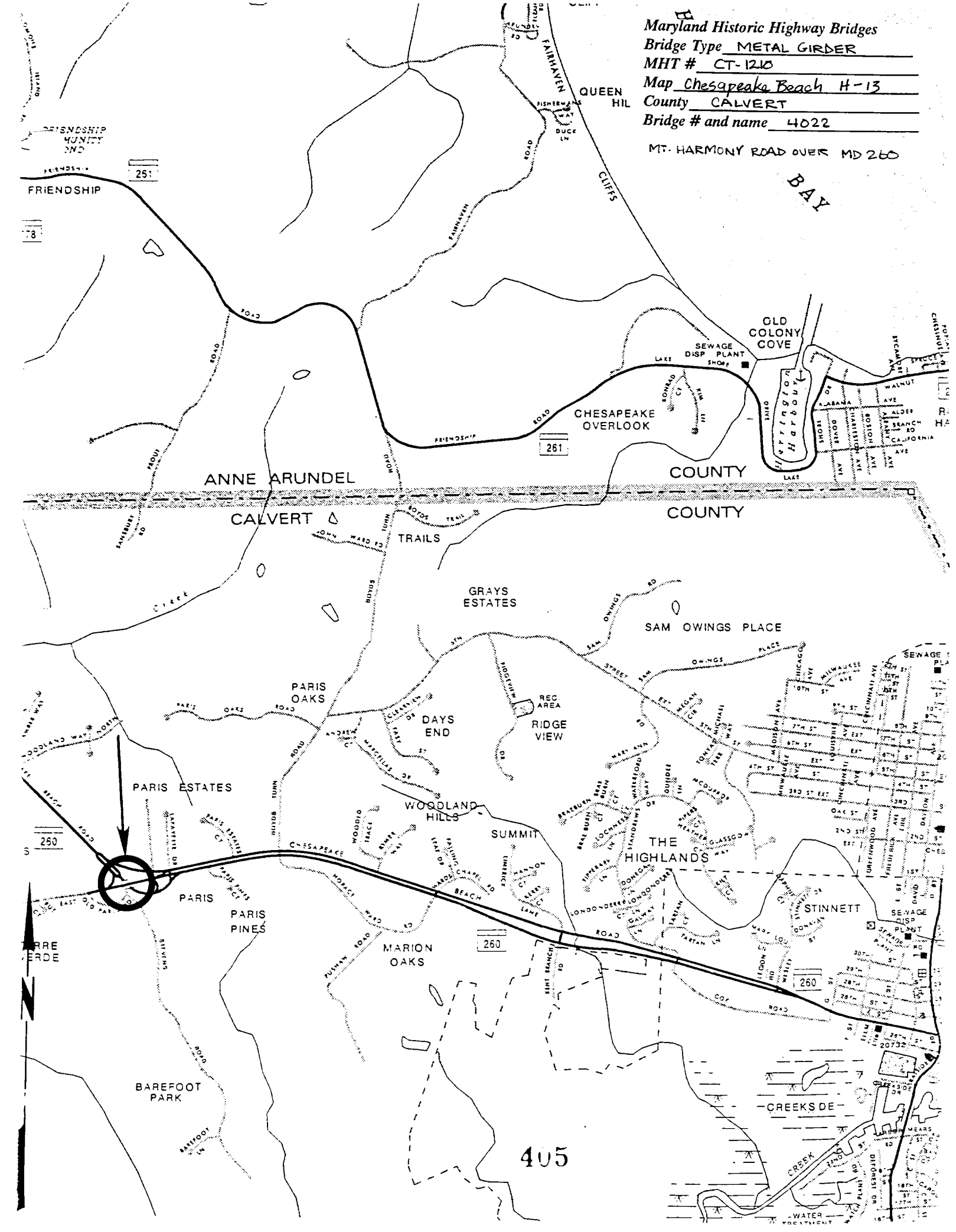
Gunnarson, Robert
1990 *The Story of the Northern Central Railway, From Baltimore to Lake Ontario*. Greenberg Publishing Co., Sykesville, Maryland.

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.

Tyrrell, Henry G.
1911 *History of Bridge Engineering*. Published by author, Chicago.

SURVEYOR:

Date bridge recorded 2/25/97
Name of surveyor Caroline Hall/Tim Tamburrino
Organization/Address P.A.C. Spero & Co., 40 W. Chesapeake Avenue, Baltimore, MD 21204
Phone number (410) 296-1635 **FAX number** (410) 296-1670


Maryland Historic Highway Bridges
Bridge Type METAL GIRDER
MHT # CT-1210
Map Chesapeake Beach H-13
County CALVERT
Bridge # and name 4022
MT. HARMONY ROAD OVER MD 260
BAY
FRIENDSHIP
QUEEN HIL
FAIRHAVEN CLIFFS
FISHERMANS BAY
DUCK LN
ROAD
251
78
OLD COLONY COVE
SEWAGE DISP PLANT
LAKE SHORE
Harbour
CHESAPEAKE OVERLOOK
KONRAD CT
KIM LN
FRIENDSHIP ROAD
261
ANNE ARUNDEL COUNTY
CALVERT COUNTY
TRAILS
BOYDS TRAIL
JOHN WARD RD
SANDBURY RD
GRAYS ESTATES
SAM OWINGS PLACE
OWINGS
PARIS OAKS
REC AREA
DAYS END
RIDGE VIEW
PARIS ESTATES
WOODLAND HILLS
SUMMIT
THE HIGHLANDS
STINNETT
SEWAGE DISP PLANT
CHESAPEAKE BEACH ROAD
260
PARIS
PARIS PINES
MARION OAKS
BAREFOOT PARK
CREEKSIDE
20732
WATER TREATMENT
405

9203380

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

Property/District Name: Bridge 4022 Survey Number: CT-1210

Project: Chesapeake Bridge Road over MD 260, Calvert Co. 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)

Based on the information provided by SHA, Bridge 4022 does not meet the National Register criteria for individual listing. The steel beam structure was built in 1934 and has no engineering or historical significance. It is one of many of its type in the state. In addition, the bridge is not located in any known historic district.

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

Preparedby: RitaSuffness

Elizabeth Hannold
Reviewer, Office of Preservation Services

January 12, 1992
Date

NR program concurrence: ✓ yes ___ no ___ not applicable

Reviewer, NR program

1.13.93
Date

Survey No. CT 1210

MARYLAND COMPREHENSIVE HISTORIC PRESERVATION PLAN DATA - HISTORIC CONTEXT

I. Geographic Region:

____	Eastern Shore	(all Eastern Shore counties, and Cecil)
X	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
X	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	
X	Architecture, Landscape Architecture, and Community Planning	
____	Economic (Commercial and Industrial)	
____	Government/Law	
____	Military	
____	Religion	
____	Social/Educational/Cultural	
____	Transportation	

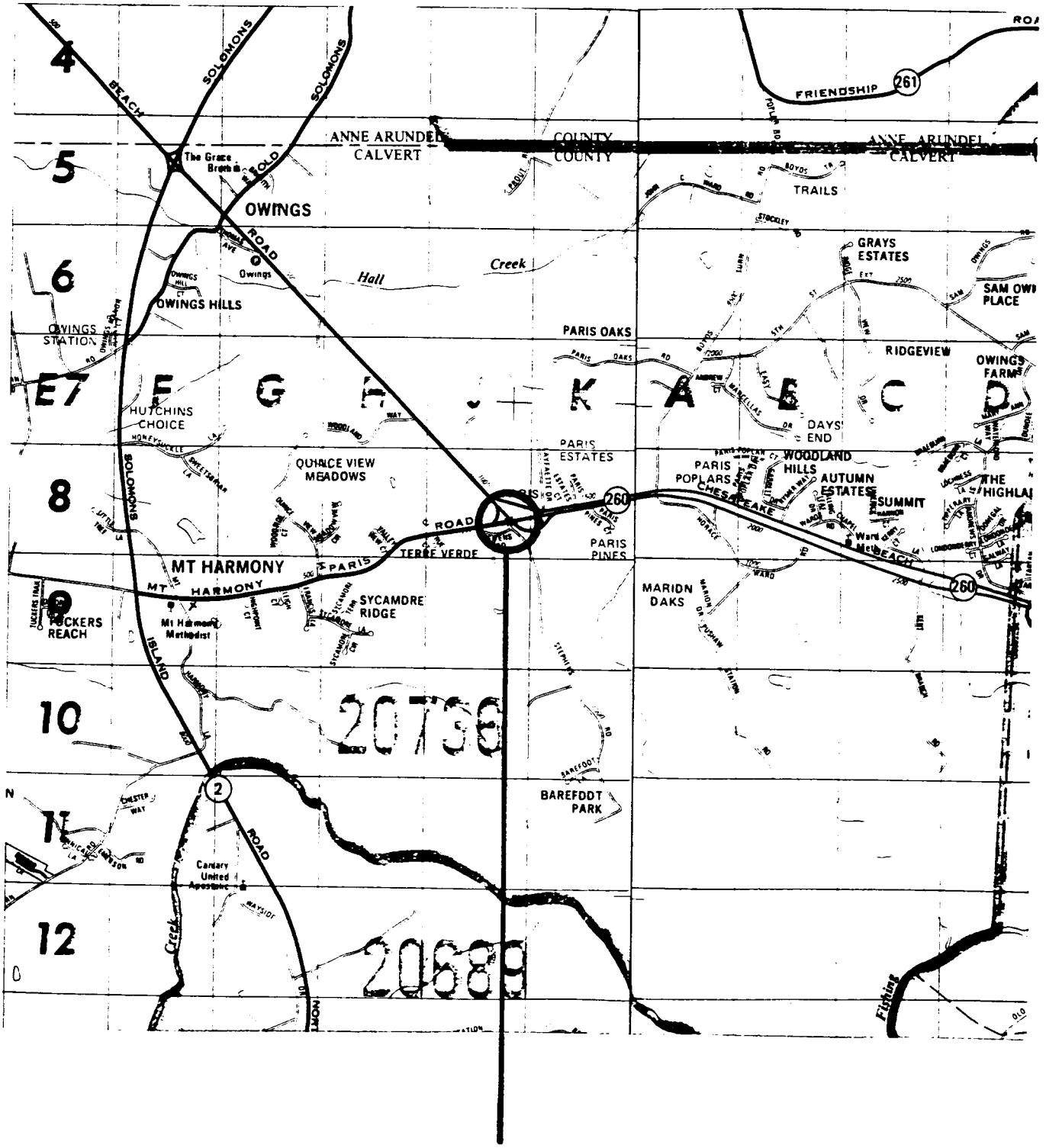
V. Resource Type:

Category: Structure

Historic Environment: rural

Historic Function(s) and Use(s): transportation

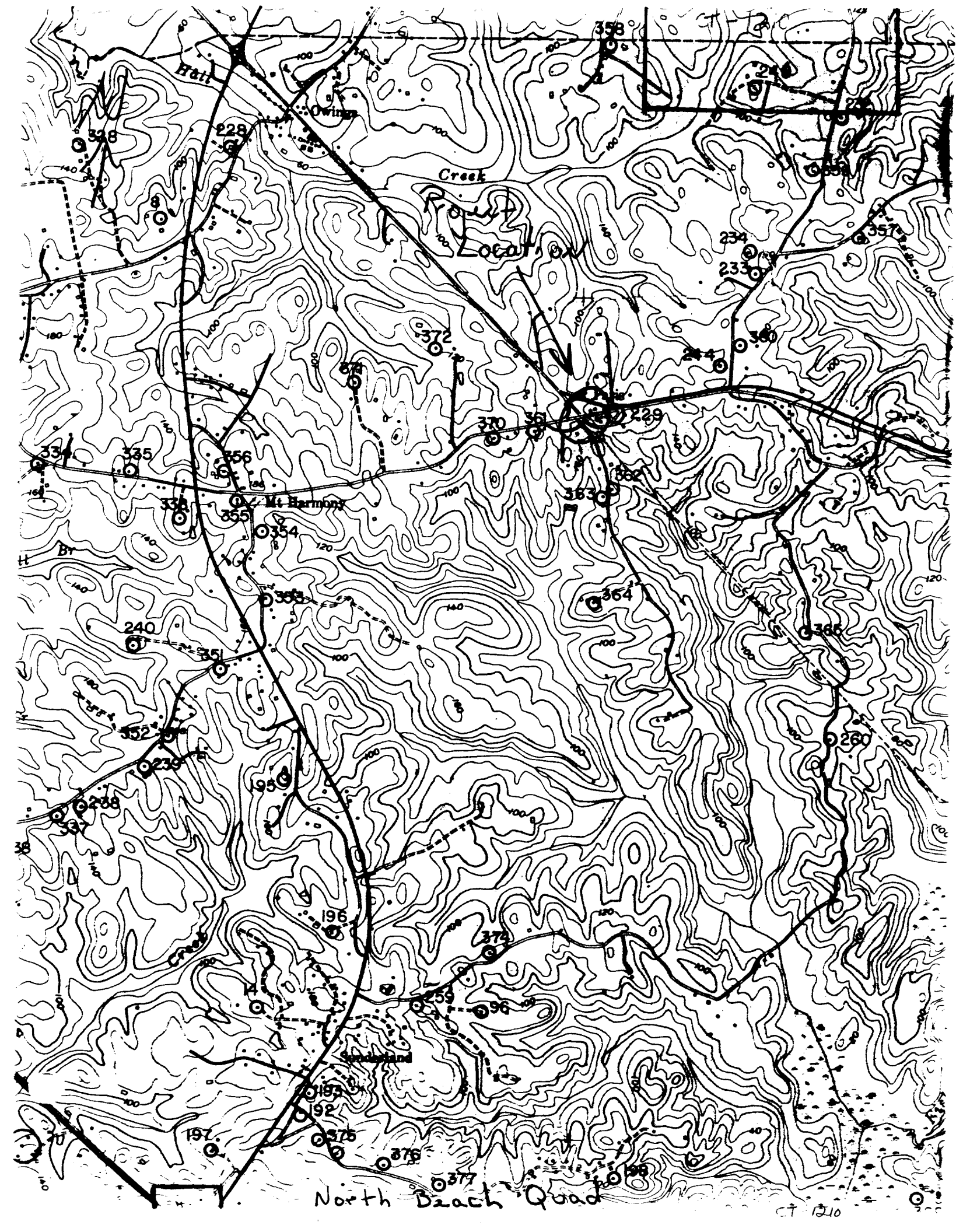
Known Design Source: Unknown



BRIDGE No. 4022

CHESAPEAKE BEACH ROAD OVER MD. RTE. 260

CT-1210


Hall
Owings
Creek
Mt Harmony
Sunderland
North Beach Quad

CT-1210


14-6

DCT 1210

2. Bridge No 4022 = [redacted].

3) Calvert Co. MD

4) Weather Center

5) Dec 91

6) CHA

7) Mt Harmony Rd over MD 260
Views from MD 260 at [illegible]

Ct - 1210

Ct - 1210

SHA

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