9600022

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

Property/District Name: Ernstville Road Bridge (#W-NR-01) Survey Number: WA-V-417

Project: Replace Ernstville Road Bridge Agency: FHWA/DNR

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

Eligibility recommended X Eligibility **not** recommended _____

Criteria: X 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 available information, Ernstville Road Bridge appears to be eligible for the National Register of Historic Places under Criterion A and C. The Ernstville Road Bridge, a three span through girder bridge constructed in the 1930s to convey vehicular traffic on Ernstville Road over the Western Maryland Railroad, appears to be somewhat unusual in construction and may be a contributing resource in two historic districts. By the 1920s, plate girder bridges were routinely used by railroads for spans of 30' to 70', as they were inexpensive to construct and maintain. This bridge, composed of three spans of 34'±, 50'±, and 30'±, would appear to be a typical example of railroad engineering for the period. However, its construction seems unusual in that the superstructure consists of timber planks nailed to timber floor beams which rest directly on the bottom flange of the through girders. Railroad bridges typically had decks of railroad ties, either laid solidly or spaced approximately 4" apart, which rested on a floor system made of metal girders. The omission of the intermediate floor system in the Ernstville Road Bridge may represent a vernacular solution; the result of railroad engineers modifying a standard railroad bridge plan, designed to carry great loads, for the lesser requirements of vehicular use. The Ernstville Road Bridge, located at the south end of the community of Ernstville, may have been constructed in response to a national effort to eliminate grade crossings: Reacting to a half century of fatal accidents, federal legislation of 1934 mandated a complete nationwide study of all railroad grade crossings where railroad tracks intersected roads directly at grade. Maryland responded with the January 1935 report Railroad Grade Crossings in the State of Maryland, which found a total of 921 such crossings and recommended their elimination via construction of overpasses or underpasses (Historic Bridges in Maryland: Historic Context Report (Spero, September, 1994).

In addition, the bridge is located within the Ernstville-Big Pool survey district (WA-V-162), a late 19th and early 20th century community which probably developed as a result of the nearby C & O Canal and railroad. The survey district is included in the Maryland Inventory of Historic Properties, but has not yet been evaluated for National Register eligibility. If eligible, the bridge might well be a contributing element in the district. Furthermore, the bridge may be a considered a contributing resource within a Western Maryland Railroad linear district. A 34-mile section of the railroad above the Ernstville Road Bridge was nominated to the National Register of Historic Places by NPS, the current owner. The property, known as Western Maryland Railway Right-of-Way, Milepost 126 to Milepost 160 (WA-VI-049 and Al-I-B-074), consists of the railroad right-of-way, culverts, tunnels and bridges. Based on the available information, it is likely that the section of the railroad which includes the Ernstville Road Bridge would also be eligible for the Register.

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

Prepared by: _____

Elizabeth Hannold — Reviewer, Office of Preservation Services
March 14, 1996 — Date

NR program concurrence: ✓ yes ___ no ___ not applicable

Orlando Ridout V — Reviewer, NR program
March 14, 1996. — Date

Survey No. WA-V-417

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)
__X__	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
__X__	Transportation

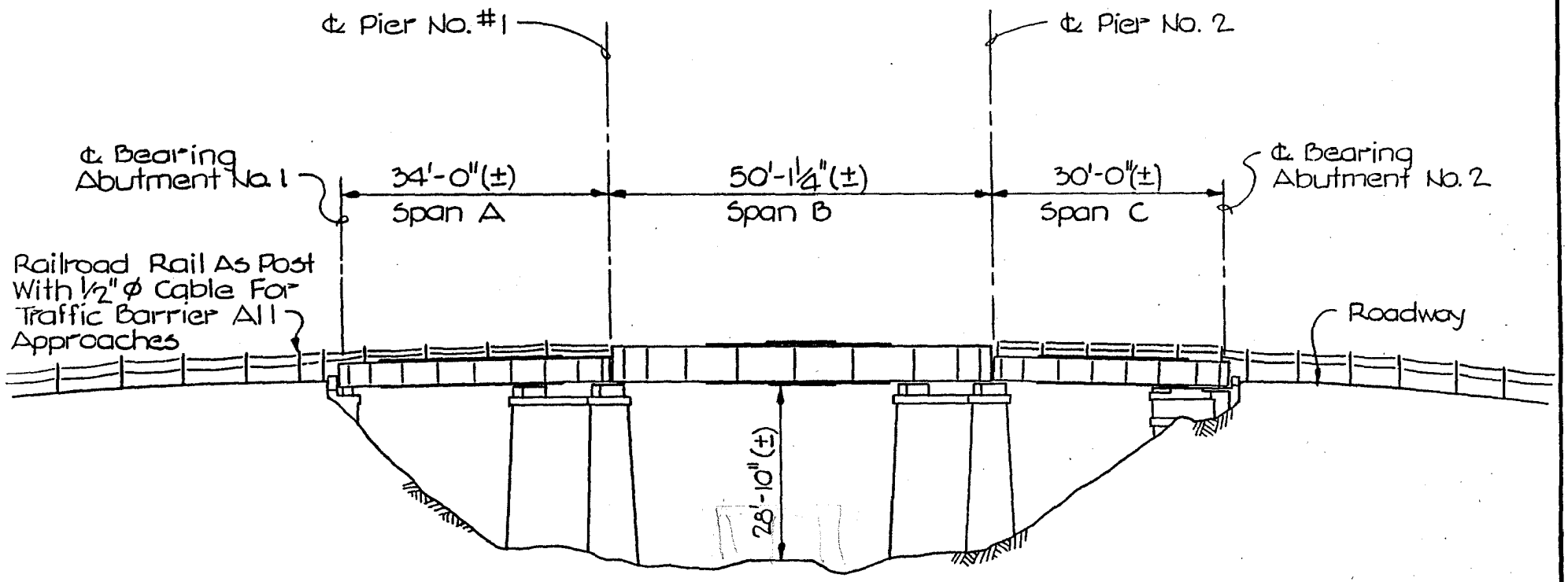
V. Resource Type:

Category: Structure

Historic Environment: Village

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

Known Design Source: unknown

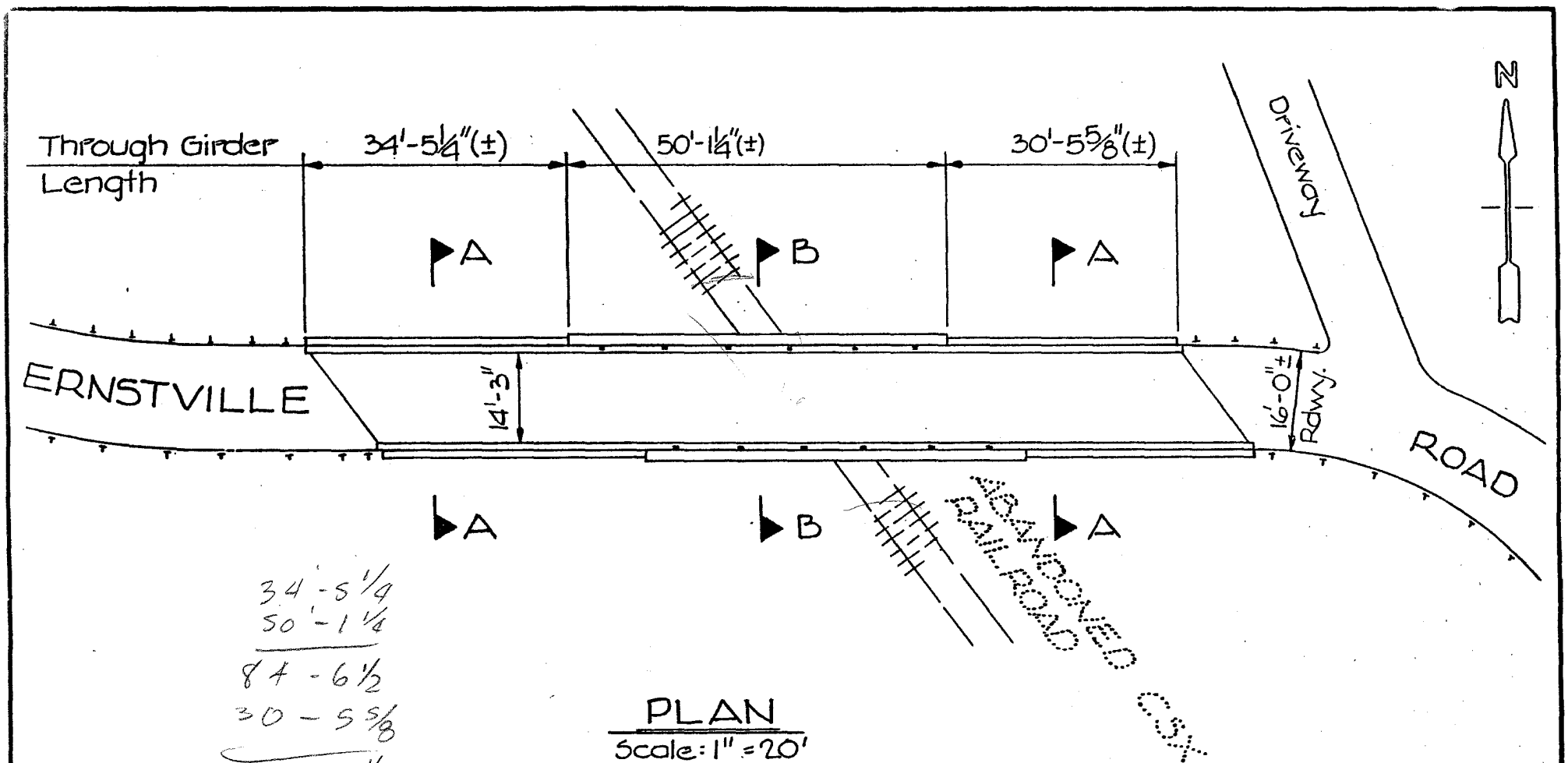


ELEVATION

Scale: 1" = 20'

WA-V-417

WASHINGTON COUNTY
DEPARTMENT OF NATURAL RESOURCES
BRIDGE NO. W-NRO1
ERNSTVILLE ROAD
OVER
ABANDONED CSX RAILROAD



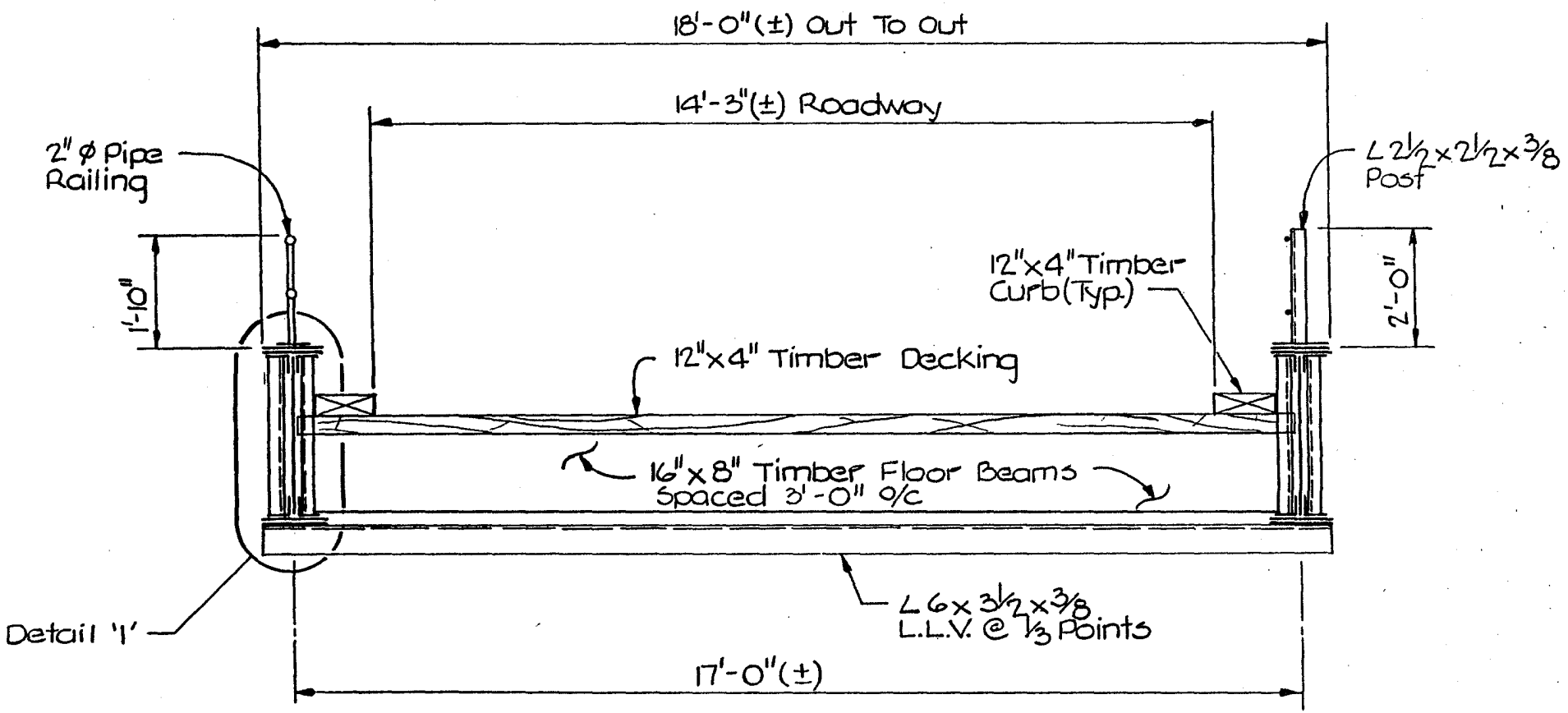
PLAN
Scale: 1" = 20'

34'-5 1/4
50'-1 1/4
84'-6 1/2
30-5 5/8
115'-0 1/8

cost of removal
115(16)(20) = $36,800
cost of culvert
40(105)10 = 42,000
78,800
$26,680

WA-V-417

WASHINGTON COUNTY
DEPARTMENT OF NATURAL RESOURCES
BRIDGE NO. W-NRO1
ERNSTVILLE ROAD
OVER
ABANDONED CSX RAILROAD

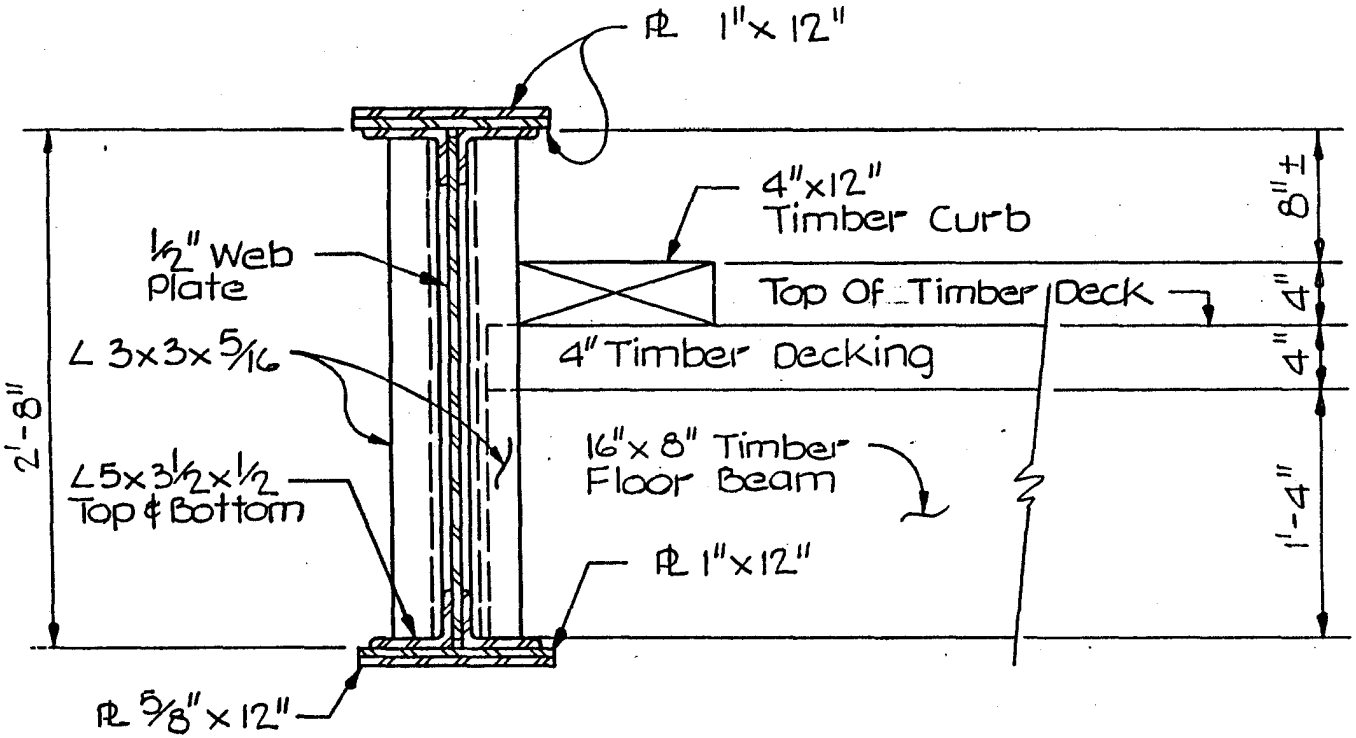


SECTION A-A

Scale: 3/8"=1'-0"

WA-V-417

WASHINGTON COUNTY
DEPARTMENT OF NATURAL RESOURCES
BRIDGE NO. W-NRO1
ERNSTVILLE ROAD
OVER
ABANDONED CSX RAILROAD

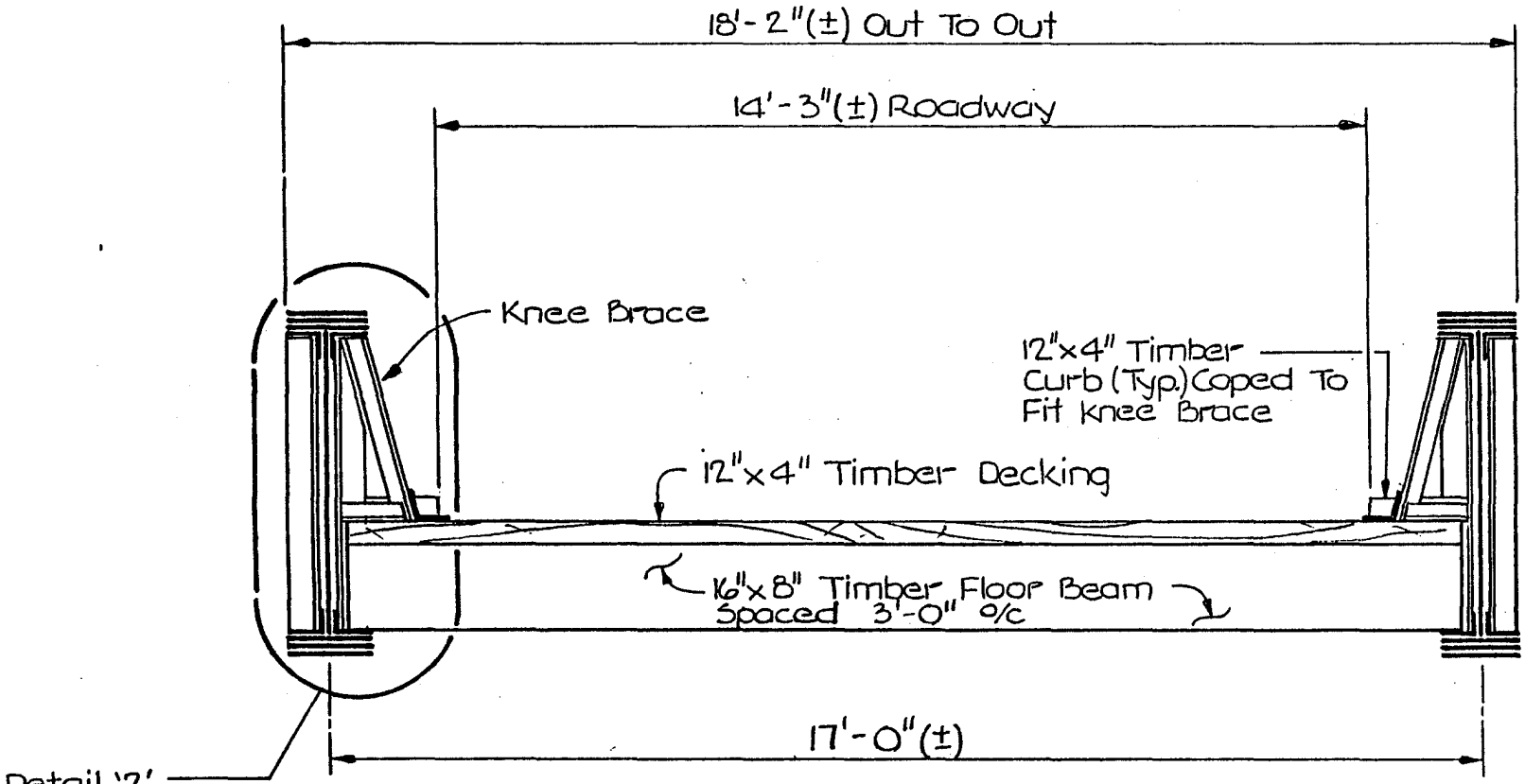


DETAIL 1

Scale: 1" = 1'-0"

WA-V-417

WASHINGTON COUNTY
DEPARTMENT OF NATURAL RESOURCES
BRIDGE NO. W-NR01
ERNSTVILLE ROAD
OVER
ABANDONED CSX RAILROAD

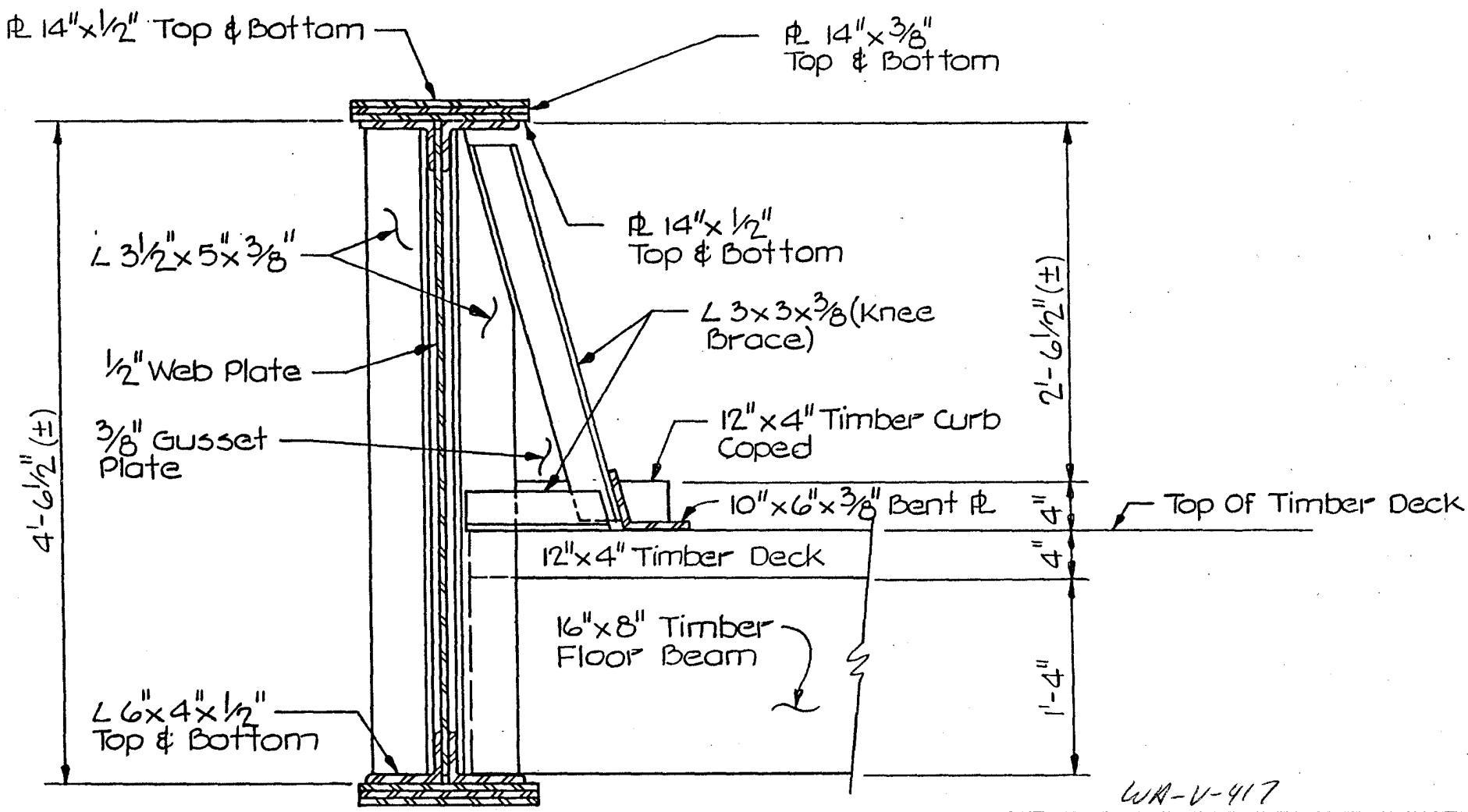


SECTION B-B

Scale: 3/8"=1'-0"

WA-V-417

WASHINGTON COUNTY
DEPARTMENT OF NATURAL RESOURCES
BRIDGE NO. W-NROI
ERNSTVILLE ROAD
OVER
ABANDONED CSX RAILROAD



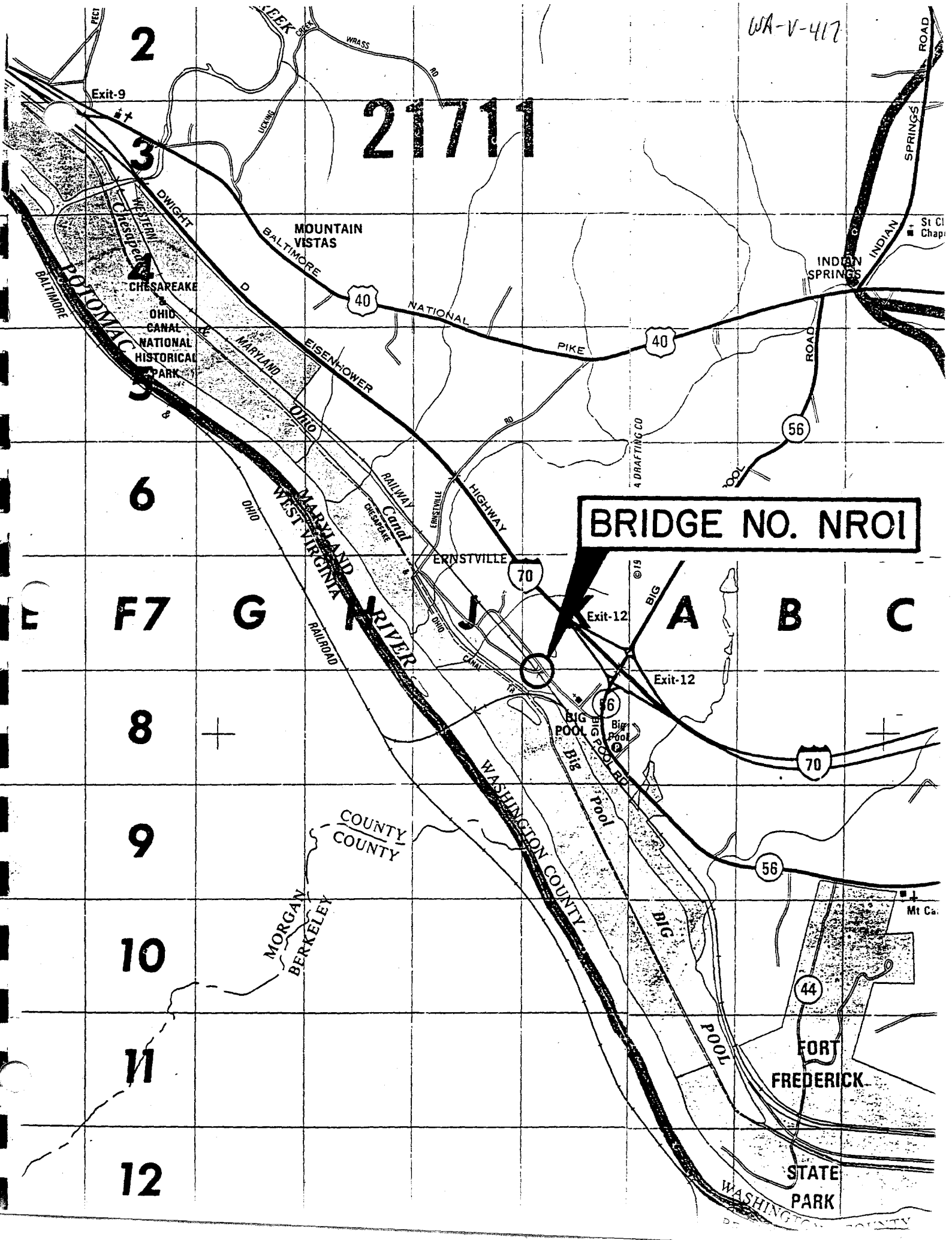
WA-V-417

DETAIL 2

Scale: 1"=1'-0"

WASHINGTON COUNTY
DEPARTMENT OF NATURAL RESOURCES
BRIDGE NO. W-NRO1
ERNSTVILLE ROAD
OVER
ABANDONED CSX RAILROAD

WA-V-417


2711
BRIDGE NO. NR01
Exit-9
Exit-12
Exit-12
MOUNTAIN VISTAS
INDIAN SPRINGS
CHESAPEAKE & OHIO CANAL NATIONAL HISTORICAL PARK
POTOMAC
MARYLAND
WEST VIRGINIA
RIVER
Ohio
Canal
ERNSTVILLE
BIG POOL
Big Pool
BIG POOL RD
WASHINGTON COUNTY
COUNTY
COUNTY
MORGAN
BERKELEY
FORT FREDERICK
STATE PARK
NATIONAL PIKE
EISENHOWER HIGHWAY
DWIGHT D
BALTIMORE
WESTERN MARYLAND RAILWAY
RAILROAD
WRASS RD
INDIAN SPRINGS ROAD
40
56
70
44
A
B
C
F7
G
J
K
2
3
4
5
6
8
9
10
11
12

WA-V-417

Snoqualmie V-142
Survey District

Ernstville Road Bridge

WA-V-217

Ernstville Road Bridge

WA-V-117

DECK

SHOT FROM BELOW

LOOKING UP

42 02 N N N-1 2

Ernstville Road Bridge

VA-V-417

42 02 2 1 4-1 2

Ernstville Road Bridge

WA-V-417

DECK BOARDS

Ernstville Road Bridge

WA-V-417

Grantville Road Bridge

WA-V-417

42 02 N N N-1 2

BEARING POST

Ernstville Road Bridge

WV-417

42 02 N N N-1 2

VIEW

Ernstville Road Bridge

WA-V-417

PIER

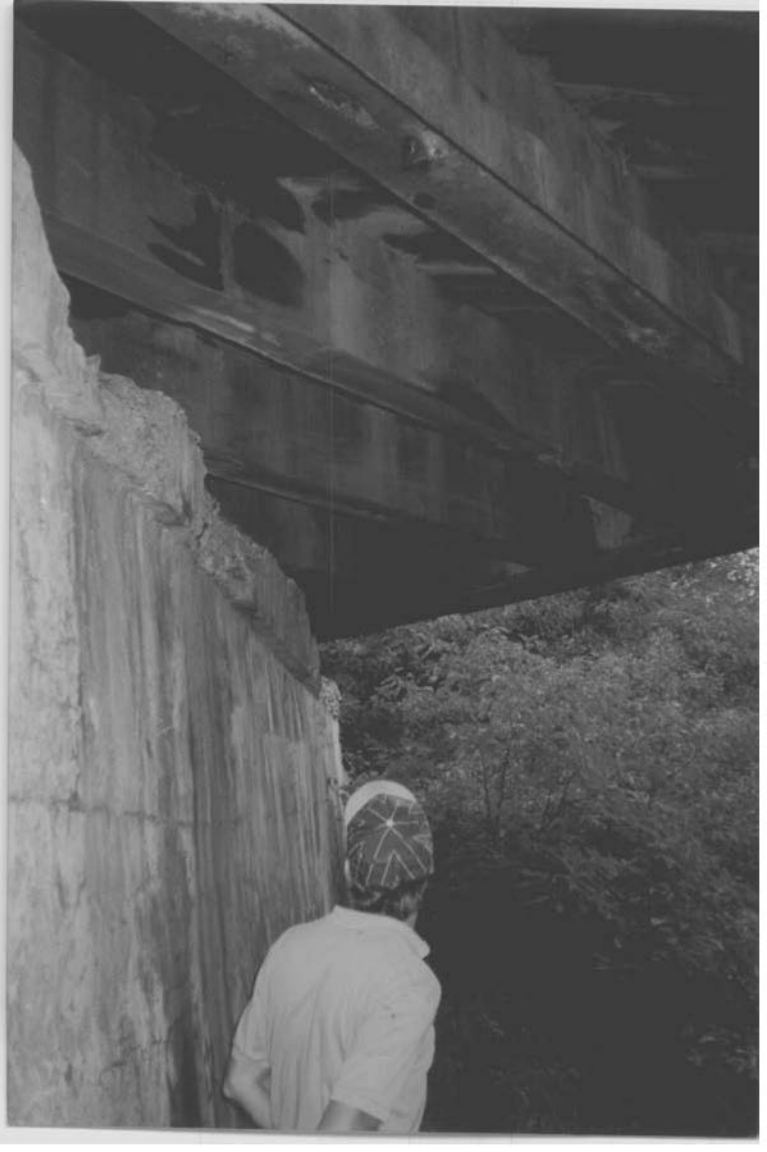
42 02 N N N N 2

Ernstville Road/Bridge

WA-V-41

PIER

42.02 N 4-1-2



Crostville Road Bridge

VA-V-417

STRINGERS

42 02 N 4 V 2

Ernstville Road Bridge

WOOD STRINGERS

W4-V-2.17

4202 N N-1 2

Ernstville Road Bridge

WA-V-417

BEARING POD

42 02 N N-1 2

Ernstville Road Bridge

WA-V-417

WOOD STRINGERS

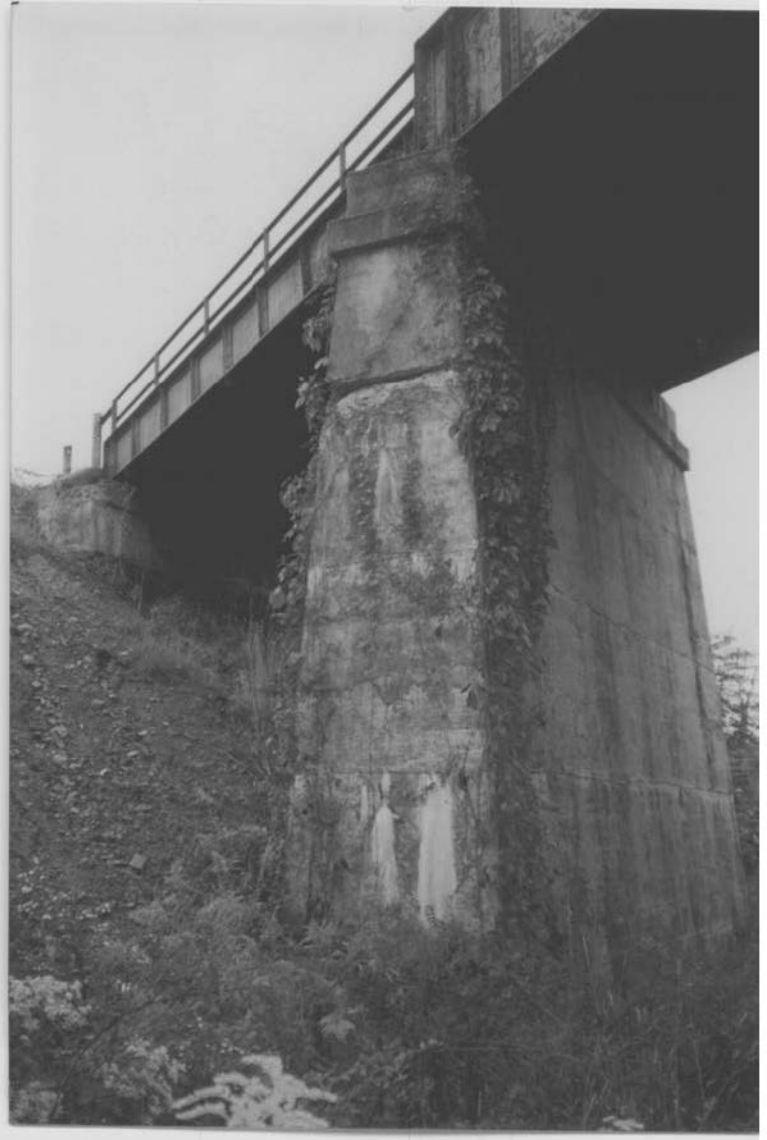
42 02 N N 4-1 2

Ernstville Road Bridge

WA-V-417

42 02 N N-H 2

FREE



Ernstville Road Bridge

WA-V-2

PIER

42 02 NW 4-12

Ernstville Road Bridge

WA-V-417

APPROACH

Ernstville Road Bridge

WA-V-417

MAIN BEAM

Ernstville Road Bridge

WA-V-417

Ernstville Road Bridge

WI-V-417

42 02 N 74 12 2

Wood Springs

Inventory Number:WA-V-417
Ernstville Road Bridge
Washington Co., MD
C. Mazurek; MD Department of Natural Resources
May 1997

CAPSULE SUMMARY

The Washington County survey prefix is WA-V. The site number is 417. The Ernstville Road Bridge was constructed approximately in 1930, and is located in Washington County, Maryland approximately three miles to the northwest of Fort Frederick State Park. The bridge is reached by taking exit 12, Big Pool; Fort Frederick, off of Interstate 70 and then proceeding to Ernstville Road. This bridge is significant because it formed a link between the two communities of Big Pool and Ernstville, which were towns important in the network of the C & O Canal, B & O Railroad, and Western Maryland Railroad transportation corridors. These corridors linked the industrial cities, such as Baltimore and Washington D. C., to the western regions of Maryland which provided efficient trade routes for both manufactured goods, as well as, raw materials. The bridge design consists of a metal superstructure, resting on a concrete substructure. It is unusual in that the timber planks are nailed to timber floor beams, which then rest directly on the bottom flange of the through girders.

Inventory Number:WA-V-417
Ernstville Road Bridge
Washington Co., MD
C. Mazurek; Maryland Department of Natural Resources
May 1997

MARYLAND COMPREHENSIVE HISTORIC PRESERVATION PLAN DATA

(I). The Geographic Region of the Ernstville Road Bridge is Western Maryland.

(II.) The Chronological/Developmental Period is the Modern Period: A.D. 1930-Present.

(III). There are no Prehistoric Period Themes known.

(IV). The Historic Period Themes are Architecture, Landscape Architecture, and Community Planning; and also Transportation.

(V). The Resource Type:

Category: Structure

Historic Environment: Village

Historic Functions and Uses: Transportation

Known Design Source: none

Maryland Historical Trust
Maryland Inventory of
Historic Properties Form

Survey No. WA-V-417

1. Name of Property (indicate preferred name)

historic

other Ernstville Road Bridge

2. Location

street & number Ernstville Road ____ not for publication

city, town Big Pool/Ernstville ____ vicinity

county Washington

3. Owner of Property (give names and mailing addresses of all owners)

name Maryland Department of Natural Resources

street & number Tawes State Office Building, Taylor Avenue telephone (410) 974-3771

city, town Annapolis state and zip code Maryland 21401

4. Location of Legal Description

courthouse, registry of deeds, etc. Washington County Court House tax map and parcel

city, town Hagerstown liber and folio

5. Primary Location of Additional Data

____ Individually Listed in the National Register/Maryland Register
____ Contributing Resource in National Register Distric
_x_ Contributing Resource in Local Historic District
____ Determined Eligible for the National Register/Maryland Register
____ Recorded by HABS/HAER
____ HSR or Research report at MHT
____ Other:

6. Classification

Category
___ district
___ building(s)
__X__ structure
___ site
___ object

Ownership
__x__ public
___ private
___ both

Current Function
___ agriculture
___ commerce/trade
___ defense
___ domestic
___ education
___ funerary
___ government
___ health care
___ industry
___ landscape
___ recreation/ culture
___ religion
___ social
__x__ transportation
___ work in progress
___ unknown
___ vacant/not in use
___ other:

Resource Count

Contributing	Noncontributing	
_____	_____	buildings
_____	_____	sites
_____	_____	structures
_____	_____	objects
_____	_____	Total

Number of Contributing Resources previously listed in the Inventory

_____

7. Description

Survey No WA-V-417

Condition
___ excellent
___ good
___ fair
__x__ deteriorated
___ ruins
___ altered

Prepare both a one paragraph summary and a comprehensive description of the resource and its various elements as it exists today.

* See Attached

Addendum

Inventory number:WA-V-417
Ernstville Road Bridge
Washington Co., MD
C. Mazurek; Maryland Department of Natural Resources
May 1997
Section 7.1

The Ernstville Road Bridge is located in Ernstville, Washington County, Maryland and is approximately three miles to the northwest of Fort Frederick State Park. The bridge is reached by taking exit 12, Big Pool;Fort Frederick, off of Interstate 70 and then proceeding to Ernstville Road. This structure, which the Maryland State Highway Administration identifies as bridge number W-NRO1, connects the communities of Big Pool and Ernstville and spans a section of the abandoned CSX railroad. These communities are included in the Maryland Inventory of Historic Properties under the Ernstville-Big Pool Survey District (WA-V-162).

The Ernstville Road Bridge, a simple span through girder bridge with three spans of the approximate lengths 34', 50', and 30', was constructed in 1930. Essentially its main function is to carry vehicular traffic over the railroad tracks, which is limited to one lane of traffic at any one time. The roadway deck is constructed of timber planking with a width, from timber curb to timber curb, of 14'-3''. The true width of the bridge, from girder edge to girder edge, is 18'-2". The entire structure has 12"x4" timber planks that are nailed onto 8"x16" timber floor beams, these then rest on the bottom flange of the through girders. The through girders are anchored to concrete piers and abutments. On each approach to the bridge there are metal posts with cables that act as guard rails, thus preventing vehicles from overshooting the bridge. The width of the roadway between these posts is 16'. This particular bridge does not have a speed restriction, but a weight restriction of a single unit of 10,000 LBS GVW has been posted.

The bridge is sited on dirt embankments that lead down to the CSX Railroad corridor. From the edges of the embankments, generally begining at the bearing abutments, to the railroad roadbed the height of the bridge is approximately 28'. On each side of the approaches to the Ernstville Road Bridge there are dirt access roads that lead to farm complexes. The general placement of the bridge is directly within the communities of Ernstville and Big Pool, with access to one another directly linked to the existence of the bridge as a result of the railroad bi-secting the towns. The character of these towns is that of rural late 19th century

communities. Besides the existence of this railway through town there are other transportation corridors, such as the C&O Canal, the B&O Railroad, and the Potomac River, that exist nearby.

The condition of the Ernstville Road Bridge is deteriorating rapidly due to weathering and neglect, and no longer meets the transportation needs of the community or the standards of the State Highway Administration. This has rendered the bridge structurally inadequate and functionally obsolescent.

The superstructure of the bridge, that is the wood and metal structure above the concrete foundation, is in very poor condition. The wooden elements have begun to rot, such as on the roadway planking, the curb boards, and the floor beams. The metal elements, such as the through girders, knee braces, stiffeners angles, and rivet heads, are heavily corroded. Also some of the metal rivets of the bridge are missing such as in the top flanges, web plates, knee braces, stiffeners, bottom flanges and connection plates. The metal corrosion and wood rot has greatly compromised the integrity of the bridge.

The substructure of the bridge, that is the concrete and metal foundation, is in fair condition. The concrete surface areas on the piers and the abutments have begun to crumble and spall on the top edges. The bearing areas for the through-girder have been decreased at the east and west abutments. Also there has been soil erosion taking place on the slope surrounding the abutments.

The approach roadways of the bridge on either side are inadequate in terms of current traffic usage, as well as, safety. The single-lane roadway was designed with a sharp horizontal curve on the bridge entrance, along with a steep vertical curve directly on the bridge which makes it impossible to see over to the other side. The timber planking on the roadway, when wet, becomes very slick which has led to a number of accidents on the bridge. A weight restriction of 10,000 LBS. has been posted for the bridge, which eliminates buses or emergency vehicles from crossing. Based on these factors road engineers have identified this bridge as one of the most hazardous in Washington County.

Maryland Historical Trust Maryland Inventory of Historic Properties Form

Survey No. WA-V-417

Name
Continuation Sheet
Number 8 Page 2

HISTORIC CONTEXT:

MARYLAND COMPREHENSIVE PRESERVATION PLAN DATA

Geographic Organization: Western Maryland

Chronological/Developmental Period(s): Modern Period A.D. 1930-Present

Prehistoric/Historic Period Theme(s): Architecture/ Landscape Architecture/ Transportation

Resource Type:

Category: Structure

Historic Environment : Village

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

Known Design Source: none

8. Significance

Survey No. WA-V-417

Period	Areas of Significance	Check and justify below		
___1600-1699	___ agriculture	___ economics	___ health/medicine	___ performing arts
___1700-1799	___ archeology	___ education	___ industry	___ philosophy
___1800-1899	___ architecture	___ engineering	___ invention	___ politics/government
_x_1900-1999	___ art	___ entertainment/ recreation	_x_ landscape architecture	___ religion
	___ commerce		___ law	___ science
	___ communications	___ ethnic heritage	___ literature	___ social history
	___ community planning	___ exploration/ settlement	___ maritime history	_x_ transportation
	___ conservation		___ military	___ other:

Specific dates 1930 **Builder/Architect**

Evaluation for:

____ National Register _X_ Maryland Register ____ not evaluated

Prepare a one-paragraph summary statement of significance addressing applicable criteria, and a narrative discussion of the history of the resource and its context. (For compliance reports, discuss evaluation on a DOE Form - see manual).

* See Attached

Inventory Number:WA-V-417
Ernstville Road Bridge
Washington Co., MD
C. Mazurek; Maryland Department of Natural Resources
May 1997
Section 8.1

Addendum

The Ernstville Road Bridge was constructed in the 1930's to connect the two communities of Big Pool and Ernstville, which were bi-sected by the Western Maryland Railroad that crossed through these towns. They are generally late nineteenth and early twentieth century communities that became established due to the numerous transportation lines that either utilized or followed the direction of the Potomac River; such as the Chesapeake & Ohio Canal, Baltimore & Ohio Railroad, and the Western Maryland Railroad. These transportation routes were influential in the linking up with westward trade and settlement routes over the Allegheny Mountains of Western Maryland.

The C&O Canal was built between the years 1828 through 1850 and ran from Georgetown in the District of Columbia to Cumberland in Maryland; paralleling the Potomac River. Once the Canal reached the headwaters of the Ohio River it was to provide a trade route between the industries on the east coast and the trans-Allegheny west. Numerous setbacks from labor shortages, financial problems, and transportation competition kept the original concept of crossing the Alleghenies from taking place, but in 1850 it was completed as far as Cumberland at a total cost of 11 million dollars. Cargo boats carried numerous goods such as flour, grain, building stone, whiskey, and coal to Georgetown, thus meeting many of the commercial demands of the growing National Capital. Also the Canal helped with the development of towns and industries along the waterway because many of them used the canal water as a power source as well as for shipping.(1)

The Baltimore & Ohio Railroad was chartered on February 28, 1827 for the purpose of a railroad that would run from Baltimore, at the head of navigation on the Chesapeake Bay, to a suitable point on the Ohio River. The ultimate quest was for a transportation connection to the ever expanding western frontier along the navigable Ohio River at Pittsburgh, to the coal fields of West Virginia, and from there to the vast expanses of territory along the Mississippi River.(3) There was extensive competition between the major seaports in the east, such as Boston, New York, Philadelphia, Baltimore, and Charleston, during the 1800's to capture the westward trade and industry. New York in 1825, opened the Erie Canal that permitted navigation to Lake Erie, while in 1826 the commonwealth of Pennsylvania chartered a system of canals

to link Philadelphia and Pittsburg. Baltimore with the Baltimore & Ohio, as well as Washington with the C & O Canal, responded by attempting to gain a hold in these lucrative transportation routes.(2) It was believed, correctly, that the B & O would be faster and more efficient than the canals of the period. The planned route of construction was to follow the Patapsco and Monocacy Rivers to the Potomac River, with the line opened for service to Ellicott's Mills on May 24, 1830. Gradually the line pushed westward until it reached the Ohio river at Wheeling, West Virginia on January 1, 1853 which was the intended location set forth in its charter.(2) Throughout the late 19th and early 20th century the B & O pushed westward as far as Illinois and Missouri.

On May 27, 1852 the Maryland General Assembly granted a charter to build a railroad from Baltimore to Hagerstown, the Baltimore, Carroll & Frederick Railroad, which was later changed to the Western Maryland Railroad. The line reached Union Bridge in 1862, then was seized by the Union Army during the Battle of Gettysburg in July 1863-with construction halted until 1868-finally Hagerstown was reached in 1872. Westward expansion continued gradually over the years with a strategic connection occurring in 1873 when the Chesapeake & Ohio Canal was reached at Williamsport, Maryland.(2) It expected to transport a major share of the Canal's coal cargo to Baltimore, but the Western Maryland lacked its own line directly to the Canal and had to pay for use of a competitors track.(4) An even more lucrative expansion occurred when the main line was extended from Williamsport to Big Pool, with a side connection over the Potomac River to Cherry Run, West Virginia where the B & O Railroad operated. With this connection the Western Maryland Railroad was able to link up to a larger network of railways, not only the B & O, but also the Reading, allowing them to operate a through freight route between Cumberland, Maryland and Allentown, Pennsylvania via Harrisburg.(2) In 1902 George Gould bought the Railroad from the city of Baltimore. With this new ownership a new marine terminal, Port Covington, was built along with a major extension of the main line from Big Pool to Cumberland directly along the Potomac River.(2) Since the B & O already had a similar line on the West Virginia side of the Potomac, the Western Maryland Railroad had to build on the Maryland side which required sophisticated grade engineering. Engineers minimized the grades by following the river closely along the C & O Canal or along the National Road. This extension was completed on March 15, 1906. From 1910-12 the last extension of the Western Maryland, from Cumberland, MD to Connellsville, PA, was constructed with the purpose of connecting with the Pittsburgh & Lake Erie to provide a transcontinental connection.(4) In 1973 the Western Maryland Railroad, as well as the Baltimore & Ohio and the Chesapeake & Ohio, were incorporated by the Chessie System. This

same year the Western Maryland Railroad applied to abandon 125 miles of its main line from Hancock, Maryland to Connellsville, Pennsylvania because their single track paralleled the Baltimore & Ohio's double-track line. The B & O line also had easier grades and better clearances; in addition, the expense of maintaining two lines was prohibitive.(2)

These very important transportation corridors surrounded the communities of Big Pool and Ernstville and impacted their immediate development. Ernstville, once named Cherry Run Landing, was founded in 1862 and had an established post office along the C & O Canal route. The town name was changed to commemorate William Ernst who was a well respected merchant within the town.(6) He operated a dry goods store within the town that advertised in 1877 "Dealers in Dry Goods, Groceries, Hardware, Hats, Caps, Boots, Shoes, and Notions of all kinds generally kept in a country store. Coal wholesale and retail, and Dealers in Grain"(5) The B & O Railroad established a train station on the West Virginia side and called it Cherry Run Landing, so they decided to change their name to commemorate Ernst as well as to eliminate confusion among travellers.(6) Many of the structures within the towns were built within the late nineteenth century to the early twentieth century, right within the time frame when the C & O Canal was becoming obsolete and the railroads were taking over the shipping trade. The transportation routes increased the amount of people who came through the towns, and provided a base for commerce to develop. The addition of the B & O railroad station increased the number of travellers and business within the town, because the C & O Canal had a stopping point in Big Pool, while the B & O also had a stopping point right across the Potomac River at Cherry Run Landing. In 1886 the towns of Ernstville and Big Pool gained even more commerce when the Western Maryland Railroad was being extended westward through their towns, and an extension line was constructed across the Potomac to connect with the B & O Railroad.(2) Now the area became not only a station for the Railroads, but also a very vital link for the Western Maryland Railroad to connect to the B & O Railroad's routes. The increased activity in Ernstville and Big Pool was the direct result of all these transportation corridors converging in the same area, which provided a healthy amount of commerce to these small towns in Washington County.

With the convergence of so many transportation lines, crossings and bridges became vital as communities were divided, as is definitely the case with Big Pool and Ernstville. The Potomac River runs parallel to the towns, as do the transportation corridors of the C & O Canal, B & O Railroad, and the Western

Maryland Railroad, thus dividing the area into many isolated segments. The Ernstville Road Bridge provided a convenient link between the northern edge of Big Pool by Saint Paul's United Methodist Church and the southern edge of Ernstville which is the location of many residences. There are two other bridges that cross the Western Maryland line in Ernstville, but they would not be as direct a link to Ernstville from Big Pool, as the Ernstville Road Bridge provides.

The development of America's canals produced a group of field trained engineers who had responded to the great need for bridges by producing innovations in bridge technology and engineering advances. They were able to cross various obstacles, such as intersecting roads, streams, or ravines, by building aqueducts.(7) This technology and skill came into great use when the surge of railroads emerged in the American landscape. Railroads demanded various types of sturdy bridge designs, which resulted in the development of new bridge types, new construction techniques, and new building materials. These technological advancements of the nineteenth century ushered in the use of metal and concrete in bridge design in the United States, instead of the traditional stone and timber.(7) As the Railroads became less important in the early 1900's and the automobile became the preferred means of travel, bridge design began to focus more on accommodating auto travellers. Highway work in the 1920's focused on completing a network of primary highways, then in the 1930's this shifted to paving the farm-to-market roads.(7) Many of the earlier bridges were constructed by localities or private parties without the design skills of trained engineers because they were standardized catalog bridges. Then states began to recognize that there was a need for a central control of highway and bridge design, with the result of highway departments being established. During the 1920's and 1930's highway bridges were designed by either the state highway department, municipal departments of public works, or consulting firms.(7)

These years, after World War I, marked the beginning of a greatly expanded bridge building campaign by the Maryland Roads Commission under Walter C. Hopkins, who headed the Bridge Division. The most attention by Hopkins was given towards replacing many of the single-lane timber bridges, that were deemed hazardous and inefficient because they only accommodated one line of vehicles at a time.(8) The ever increasing vehicular traffic in the state demanded the revamping of bridges and a long-range program of reinforcement and reconstruction. The problem of railroad grade crossings was another reason that new bridges needed to be constructed. Fatal accidents increased whenver a railroad line and

a road intersected, so the need to eliminate this danger produced, during the 1920's, the creation of many underpasses and overpasses. As early as 1914 the Maryland State Roads Commission recognized the dangerous conditions that railroad grade crossings presented, and the need to replace them with safer crossings. Sec. 32Z2. of the Laws, Governing, Construction, Maintenance and Use of State Roads Acts 1906, 1908, 1910, 1912, 1914, Compiled by Order of the State Roads Commission states that:

> Whenever any state road crosses the grade of the line of any railroad worked by steam or other power, the State Roads Commission shall have the power to contract with such railroad for the construction of any bridge, archway or culvert that may be needed for the purpose of any over-grade or under-grade crossing; and to provide by contract or otherwise for the maintenance thereof. Provided, that one-half of the construction cost of such bridge, archway, culvert or roadbed shall be paid for by the railroad and one-half by the State Roads Commission.(10)

Due to a half century of fatal accidents federal legislation in 1934 required a nationwide study of all railroad grade crossings where the tracks intersected roads directly at grade. In a 1935 report, appropriately titled Railroad Grade Crossings in the State of Maryland, there were found to be a total of 921 dangerous crossings that needed to be eliminated.(9) By 1938 a total of 67 overpasses or underpasses had been built and 3 crossings had been eliminated by the creation of by-passes or road relocation. However many of the early bridges built in the program were found to be obsolete because by 1938 they were too narrow to handle the increasing demands of vehicular traffic. There were also still 150 other grade crossings still existing that needed to be eliminated.(8) Many of the inadequate highway structures identified were not addressed until the late 1940's because of the financially lean years that existed between the Great Depression and World War II.(8)

The Ernstville Road Bridge, as compared to other historic Maryland bridges, is utilitarian in design with no stylistic or decorative elements added to the structure. Its components of timber, concrete, and metal were used entirely as functional materials to convey traffic from one point to another point. The one distinctive element of the bridge is that instead of railroad ties laid over a floor system of metal girders, there are timber planks nailed to timber floor beams which rest directly on the bottom flange of the through girders.(11) The former type of bridge design would have been employed if a railroad was to have passed over the bridge, but instead it was built for vehicular

traffic and had no need to support increased loads.

There are many different styles of bridge construction evident in Maryland, especially Washington County, that can be compared and contrasted to the design of the Ernstville Road Bridge. These range from timber bridges, stone arch bridges, metal bridges, and concrete bridges.

Timber bridges were the oldest examples of bridge construction in Maryland, and usually consisted of simple, beam-type or king and queen post truss types. Because of the plentiful supplies of timber available in the state, and the many rivers and streams that needed to be crossed, timber bridges became very popular by the eighteenth century and continued through the early twentieth century. Railroad companies constructed many examples of timber trestle-type bridges, such as the B & O bridge over Antietam Creek, that was built in 1867 to serve the Washington County Branch of the B & O Railroad. Usually the more ornate and complex timber railroad bridges were constructed in urban areas, while in rural areas the timber bridges were more utilitarian. During the twentieth century a new innovation in timber bridges evolved with the use of concrete as a new construction material. The superstructure had timber laid on top of concrete slabs, this was then supported by timber piers or piles. Timber and concrete bridges were both economical and could support the growing demands of vehicular traffic. Most of the early examples were built on the Eastern Shore and in Southern Maryland.(9)

Stone arch bridges consist of a masonry arch barrel with spandrel walls on the outermost edges which act to contain fill material that is deposited over the arch. Through compression the arch is able to carrry loads transmitted by the deck and the spandrel walls. These types of bridges were built in Maryland, especially in Washington County, mostly during the nineteenth century. There is a large collection of stone arch bridges in Washington County which includes some of the earliest examples in the state, such as the Parkton Stone Arch (1809), Casselman River Arch (1813), and the Wilson's Bridge (1818-1819). Stone arch bridges were significantly stronger than simply constructed timber structures, and were better able to withstand floods and heavy traffic. Railroads, like the Baltimore & Ohio that pioneered the incorporation of stone arch bridges in railroad use, used this strength of the stone arch bridge design to carry large loads over rivers, streams, and roads. The use of stone in bridge design declined just as concrete was becoming a popular construction material in the twentieth century, although the arch as a

structural design element was retained due to its inherent strength.(9)

Metal bridges became popular in the mid to late nineteenth century as new designs emerged especially the metal truss, metal arch, and metal girder. Metal truss bridges employed the use of two parallel trusses, essentially a series of interconnected triangles, set upon a floor system. Similarly, metal arch bridges have two parallel arches set upon a floor system.(9) The designs can have different variations, but the structural system is essentially the same. Metal girder bridges have parallel metal beams that support the floor system and the roadway. The location of the girders determines the characterization of the bridge, such that bridges where the girders are located below the roadway are called deck girder bridges, but where the girders extend above the roadway level they are called through girders. The ability to create these bridges was made possible by technological advancements in design, but also in materials. The transition to iron members began in the 1840's, but then by 1895 rolled iron shapes were unavailable and the use of steel became standard.(7) Metal truss, arch, and girder bridges were greatly valued, especially by the railroads which pioneered the designs, for their ability to withstand great loads and floods. They were a great improvement over timber bridges which were subject to decay, and also required a lot of maintenance. There are not many examples of metal bridges in Washington County, many of them are concentrated in urban Baltimore, however there is a large Wichert truss bridge that crosses the Potomac River, from roughly Sharpsburg, MD to Shepherdstown, W.VA, that is an example of major truss bridges that were built in the late 1937-1939.(9) The Ernstville Road Bridge is a typical example of through girder metal bridges built in the twentieth century by railroads attempting to eliminate at grade railroad crossings.

Throughout the first half of the twentieth century concrete bridges rose in popularity as roadway engineers discovered the valuable properties of concrete in bridge design, namely strength and limited maintainence. The structural capabilities of concrete began to slowly develop, from concrete covering metal bridge members to protect it from the elements, to metal mesh reinforcing the concrete, and finally to concrete providing the major structural support with metal girders, beams, or reinforcing bars. Concrete eliminated many of the deterioration problems associated with timber and metal bridges that were expensive to repair, in addition to being dangerous for the public. Concrete bridges can take on many design and structural variations such as arches, girders, slabs, and rigid frames.(9) Washington County, with its long tradition of building stone arch bridges, embraced the concept

of creating concrete arch bridges. Concrete arches had an advantage over stone arches in that they could support more load bearing weight, as well as, a much greater span capability.(7) In 1906-1909 the Nelson Construction Company built many reinforced single arch concrete bridges in Washington County, that were noted for their aesthetic appearance. Another example is the Route 40 bridge over the Conococheague Creek that was built in 1936.(9)

The Western Maryland Railroad applied to abandon 125 miles of its line in 1973, from Hancock, MD to Connellsville, PA because it paralleled the B & O line which were collectively owned by the same company, the Chessie System. This closure eliminated the need for the Ernstville Road Bridge, because there was no longer an at grade railroad crossing that would pose a dangerous traffic crossing. Although the bridge was still retained as a way to easily cross from Big Pool to Ernstville. The National Park Service acquired a 34 mile segment of the Railroad in 1980, from Milepost 126 to Milepost 160 (WA-VI-049 and AL-I-B-074), which was nominated to the National Register of Historic Places.(11) In 1990 the Department of Natural Resources aquired, under Program Open Space, the 20.35 mile abandoned segment of the Western Maryland Railroad that runs from approximately one half mile east of Fort Frederick State Park and ends at Tonoloway Ridge. This purchase was initiated by the 1988 Maryland legislation, House Bill 615, that wanted to identify unused railroad lines that would be suitable for a rails-to-trails conversion.(13) Eventually there is to be a continuous connection between hiker-biker trails that would stretch across the state. The Department of Natural Resources wants to replace the Ernstville Road Bridge, which Washington County identified as one of the most hazardous and accident prone locations along their county roadways.(13) DNR proposes to replace this metal bridge with timber deck and floor beams with a prefabricated concrete arch culvert whose appearance is intended to reflect the historic stone arch bridges located throughout Washington County.

Notes

(1) Mackintosh, Barry; Romigh, Philip S. National Register of Historic Places Inventory - Nomination Form, Chesapeake and Ohio Canal. Form completed in March of 1979.

(2) Drury, George H. The Historical Guide to North American Railroads. Kalmbach Publishing Co.: Milwaukee, WI, 1988.

(3) Rodgers, William. "Riding the Maryland Rails - The Era Began in Baltimore". Maryland Magazine, Winter 1984.

(4) Mackintosh, Barry. National Register of Historic Places Inventory - Nomination Form, Western Maryland Railway Right - of - Way, Milepost 126 to Milepost 160. Form completed March 10, 1981.

(5) Map of Indian Spring: Washington County, District No. 15. Not Dated, but it was created before the Western Maryland Railroad ran an extension through Ernstville (Cherry Run)/Big Pool.

(6) Interview with Mrs. Beauregard, Librarian of the Washington County Historical Society. The Miller House, Hagerstown, Maryland; April 1997.

(7) Pennsylvania Historical and Museum Commission. Historic Highway Bridges in Pennsylvania. The Pennsylvania Department of Transportation, 1986.

(8) Report of the State Roads Commission of Maryland. Operating Report for the Fiscal Years 1957 - 1958; Financial Report for the Fiscal Years 1957 - 1958; A History of Road Building in Maryland. Baltimore, Maryland, December 15, 1958.

(9) Berger, Louis, and Associates Inc.; Spero, P. A. C. and Co. Historic Bridges in Maryland: Historic Context Report. Prepared for the Maryland State Highway Administration and the Maryland State Department of Transportation. September 1994.

(10) Greenbaum, Leon E; compiled by order of the State Roads Commission. Laws, Governing, Construction, Maintenance, and Use of State Roads Acts 1906, 1908, 1910, 1912, 1914. The Sun Book and Job Printing Office Inc.: Baltimore, 1914.

(11) Maryland Department of Natural Resources. Section 106 Case Report, Western Maryland Rail Trail Washington County, Maryland; Letter by J. Rodney Little, SHPO. to Mr. Arnold Norden, DNR. November 8, 1996.

Notes Cont.

(12) The Western Maryland Rail Trail Study and Master Plan. Prepared by the Western Maryland Rail Trail Citizens Advisory Committee and the Maryland Department of Natural Resources Public Lands and Forestry, Greenways and Resource Planning Program. March 1993.

9. Major Bibliographical References

Survey No. WA-V-417

10. Geographical Data

Acreage of surveyed property less than one acre

Quadrangle name Cherry Run, MD-WV

Quadrangle scale 1:24,000

Verbal boundary description and justification

The Ernstville Road Bridge extends from the concrete abutment on the north side, to the concrete abutment on the south side. This designation encompasses the 114' span of the bridge which is located on Ernstville Road, in Washington County. The boundaries of the bridge can be referenced on the site plan provided with this form.

11. Form Prepared By

name/title Charlie Mazurek, Historic Sites Surveyor

organization Maryland Department of Natural Resources

date May 19, 1997

street & number Tawes State Office Building, Taylor Avenue

telephone (410) 974-3771

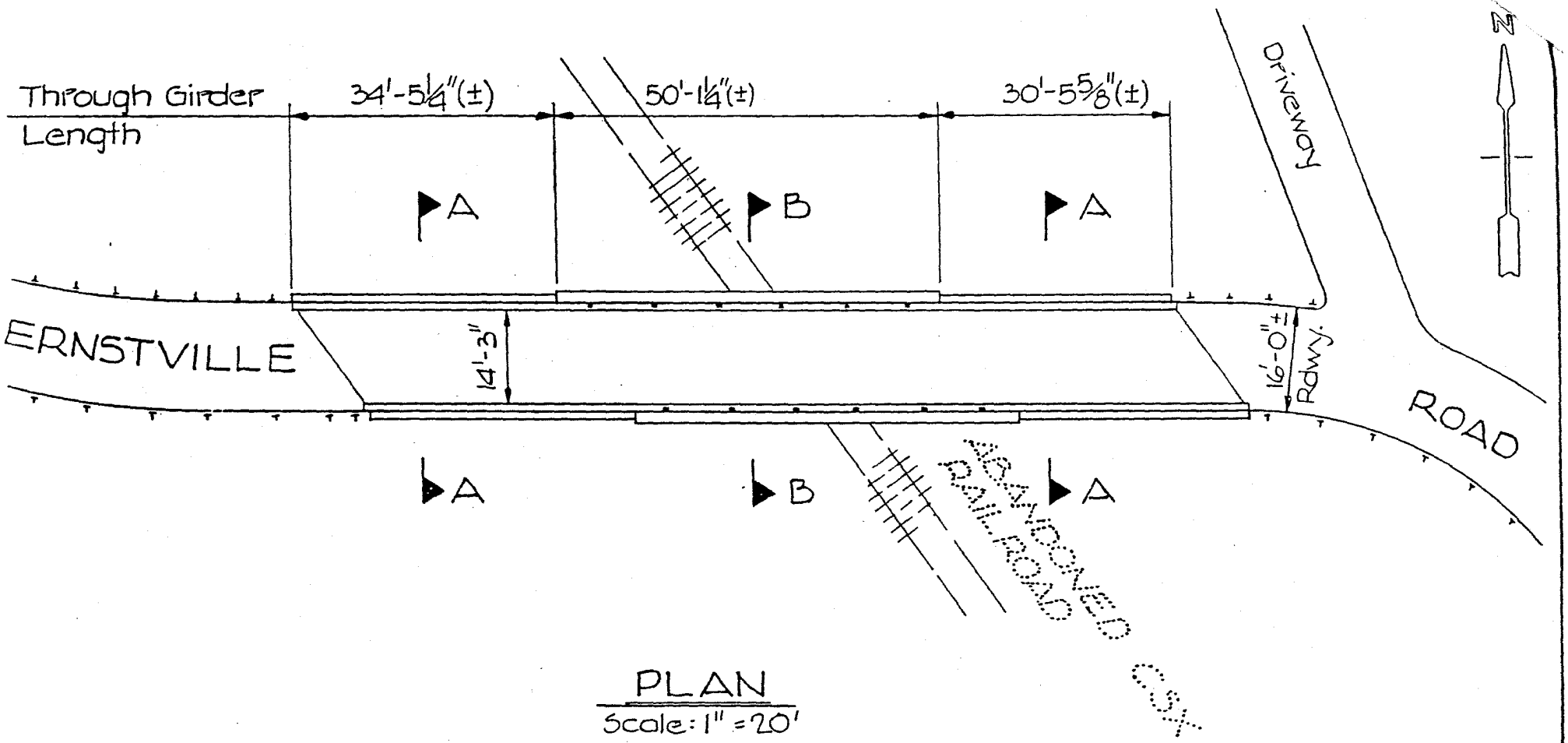
city or town Annapolis

state and zip code Maryland 21401

The Maryland Inventory of Historic Properties was officially created by an Act of the Maryland Legislature to be found in the Annotated Code of Maryland, Article 41, Section 181 KA, 1974 supplement.

The survey and inventory are being prepared for information and record purposes only and do not constitute any infringement of individual property rights.

return to: Maryland Historical Trust
DHCD/DHCP
100 Community Place
Crownsville, MD 21032-2 023
410-514-7646



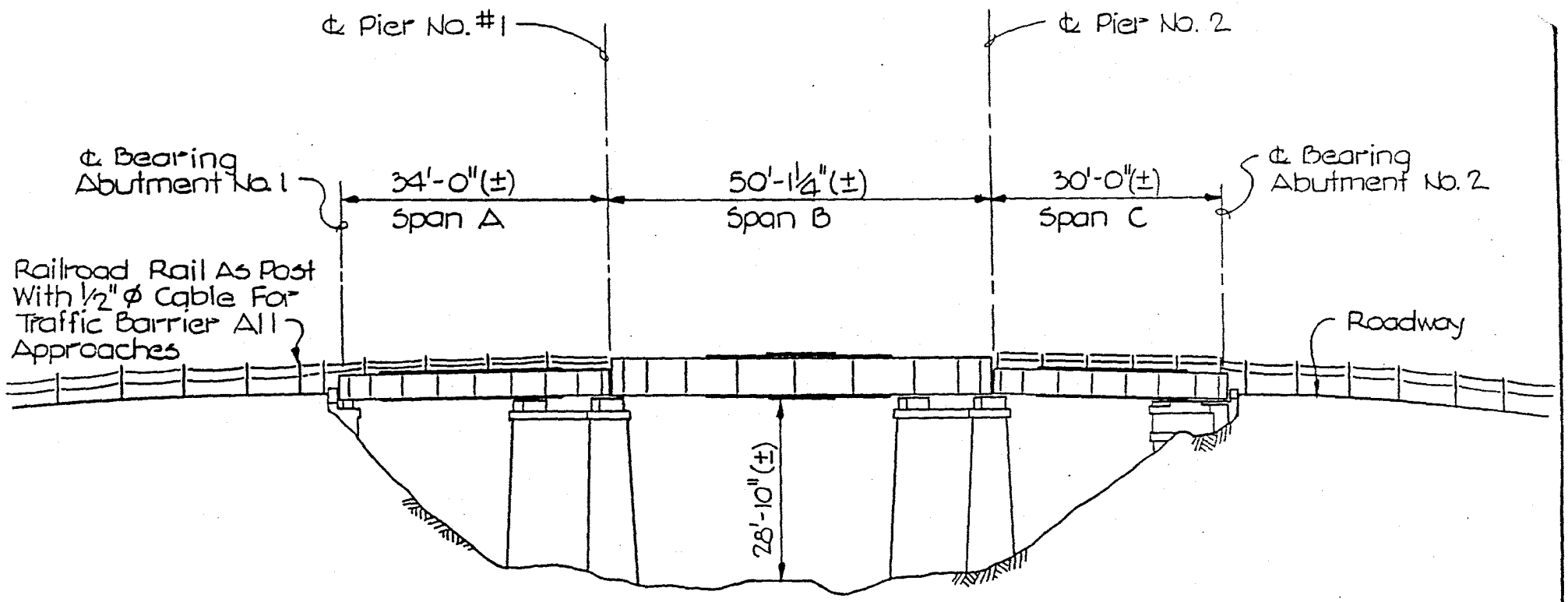
PLAN

Scale: 1" = 20'

KENNEDY, PORTER, & ASSOCIATES, INC

WASHINGTON COUNTY
DEPARTMENT OF NATURAL RESOURCES
BRIDGE NO. W-NROI
ERNSTVILLE ROAD
OVER
ABANDONED CSX RAILROAD

WA-V-417



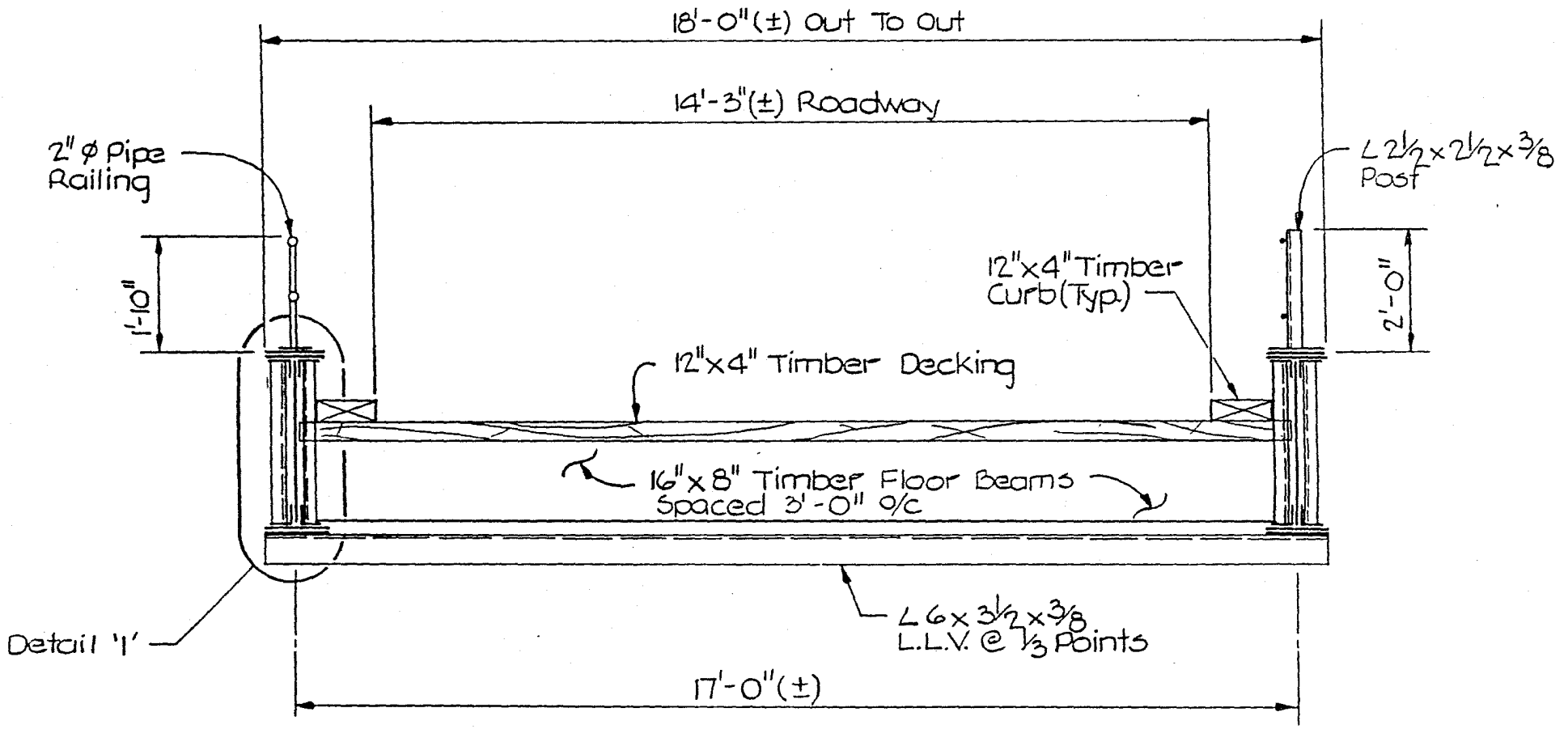
ELEVATION

Scale: 1" = 20'

KENNEDY, PORTER & ASSOCIATES, INC.

WASHINGTON COUNTY
DEPARTMENT OF NATURAL RESOURCES
BRIDGE NO. W-NROI
ERNSTVILLE ROAD
OVER
ABANDONED CSX RAILROAD

WA-V-417

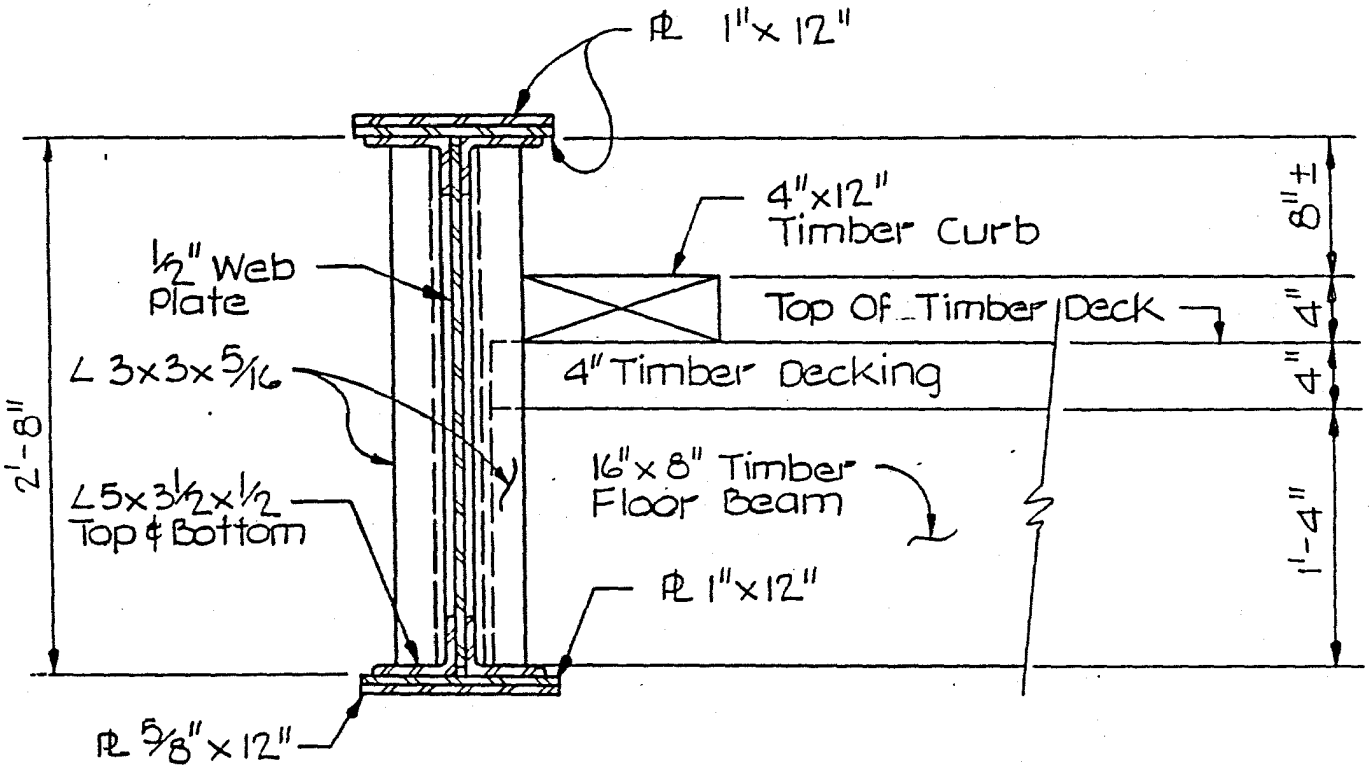


SECTION A-A

Scale: ⅜"=1'-0"

KENNEDY, PORTER & ASSOCIATES, INC.

WASHINGTON COUNTY
DEPARTMENT OF NATURAL RESOURCES
BRIDGE NO. W-NRO1
ERNSTVILLE ROAD
OVER
ABANDONED CSX RAILROAD

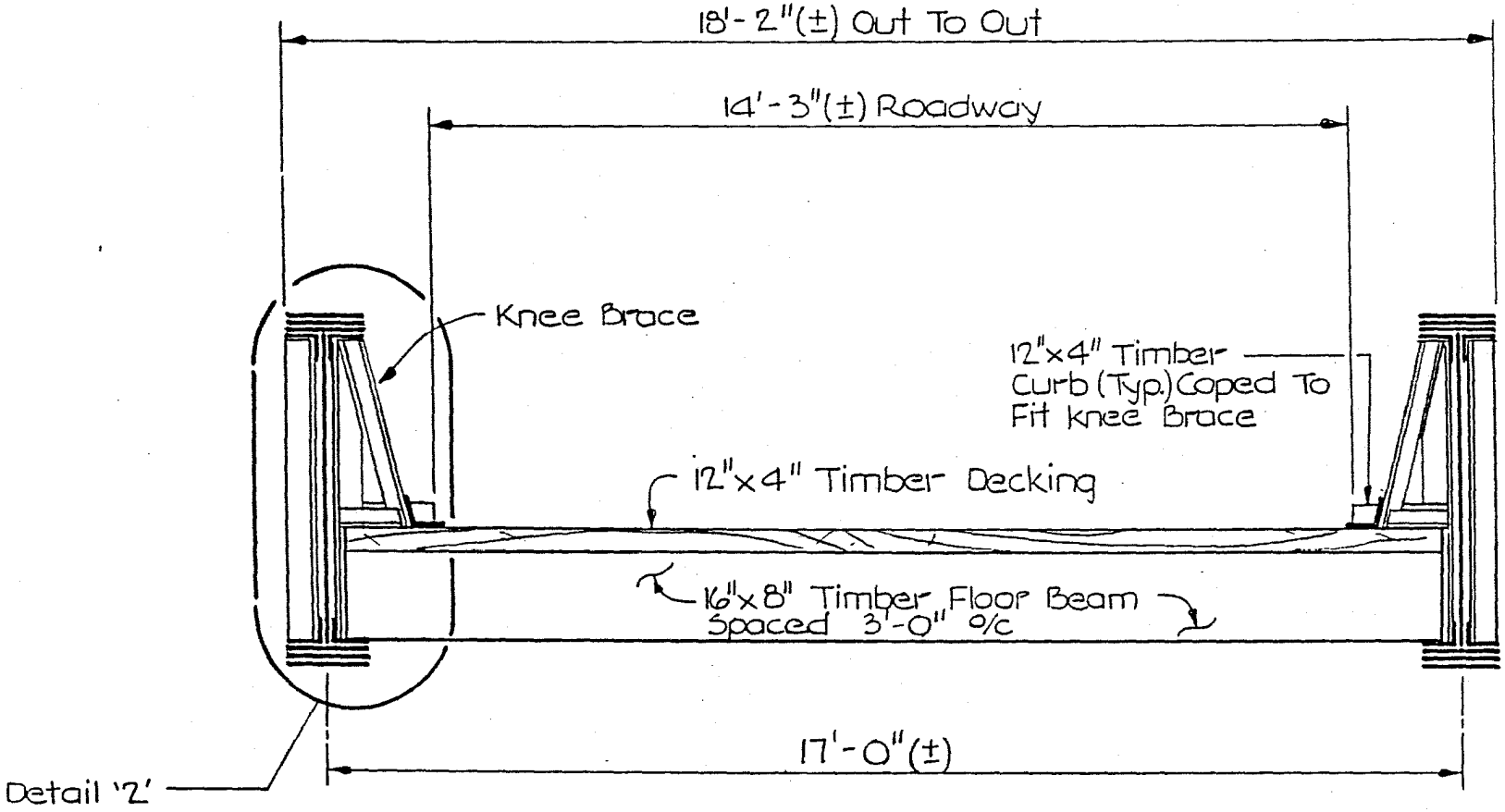


DETAIL 1

Scale: 1" = 1'-0"

KENNEDY, PORTER & ASSOCIATES, INC.

WASHINGTON COUNTY
DEPARTMENT OF NATURAL RESOURCES
BRIDGE NO. W-NRO1
ERNSTVILLE ROAD
OVER
ABANDONED CSX RAILROAD

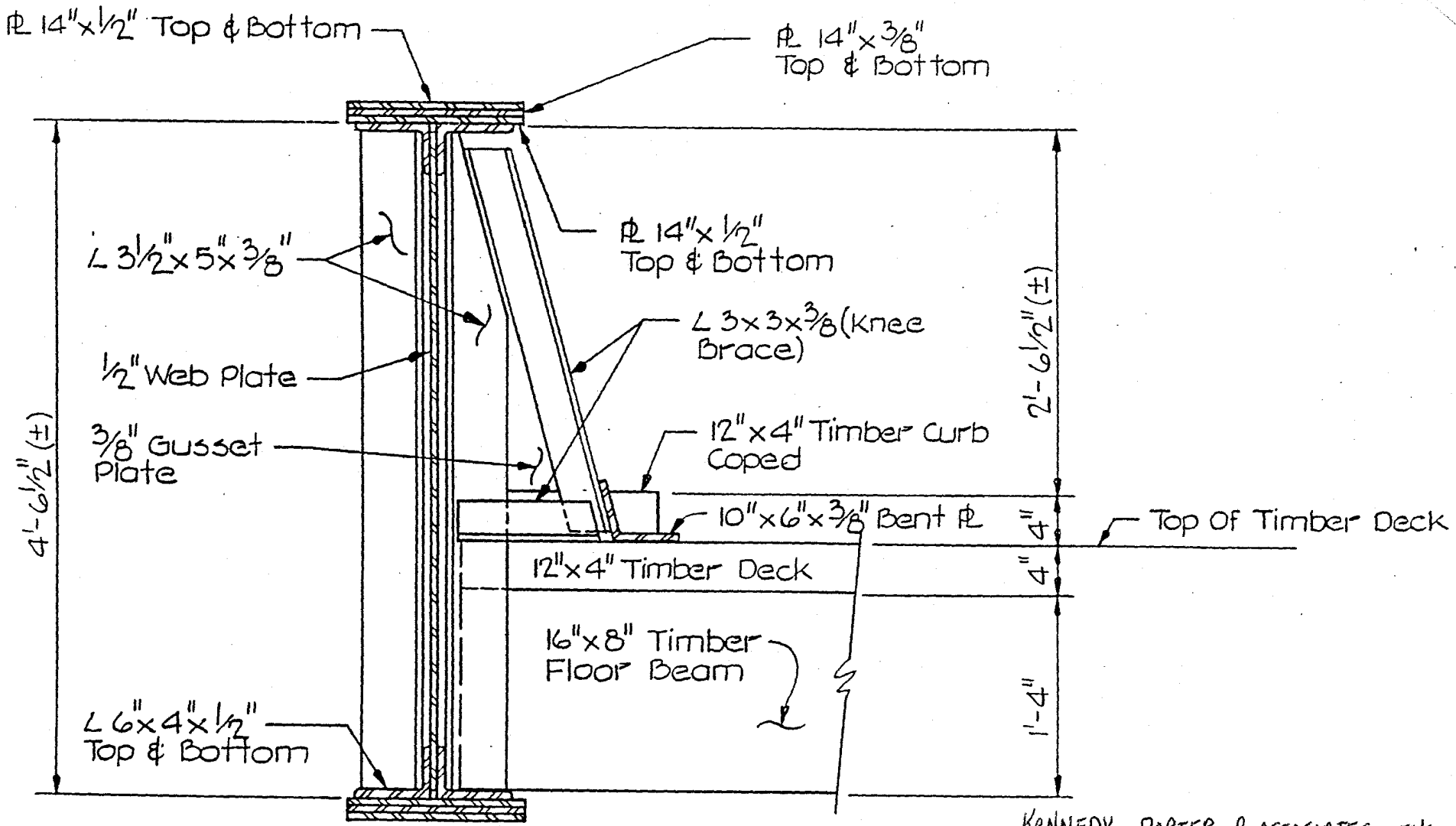


SECTION B-B

Scale: 3/8"=1'-0"

KENNEDY, PORTER & ASSOCIATES, INC.

WASHINGTON COUNTY
DEPARTMENT OF NATURAL RESOURCES
BRIDGE NO. W-NRO1
ERNSTVILLE ROAD
OVER
ABANDONED CSX RAILROAD



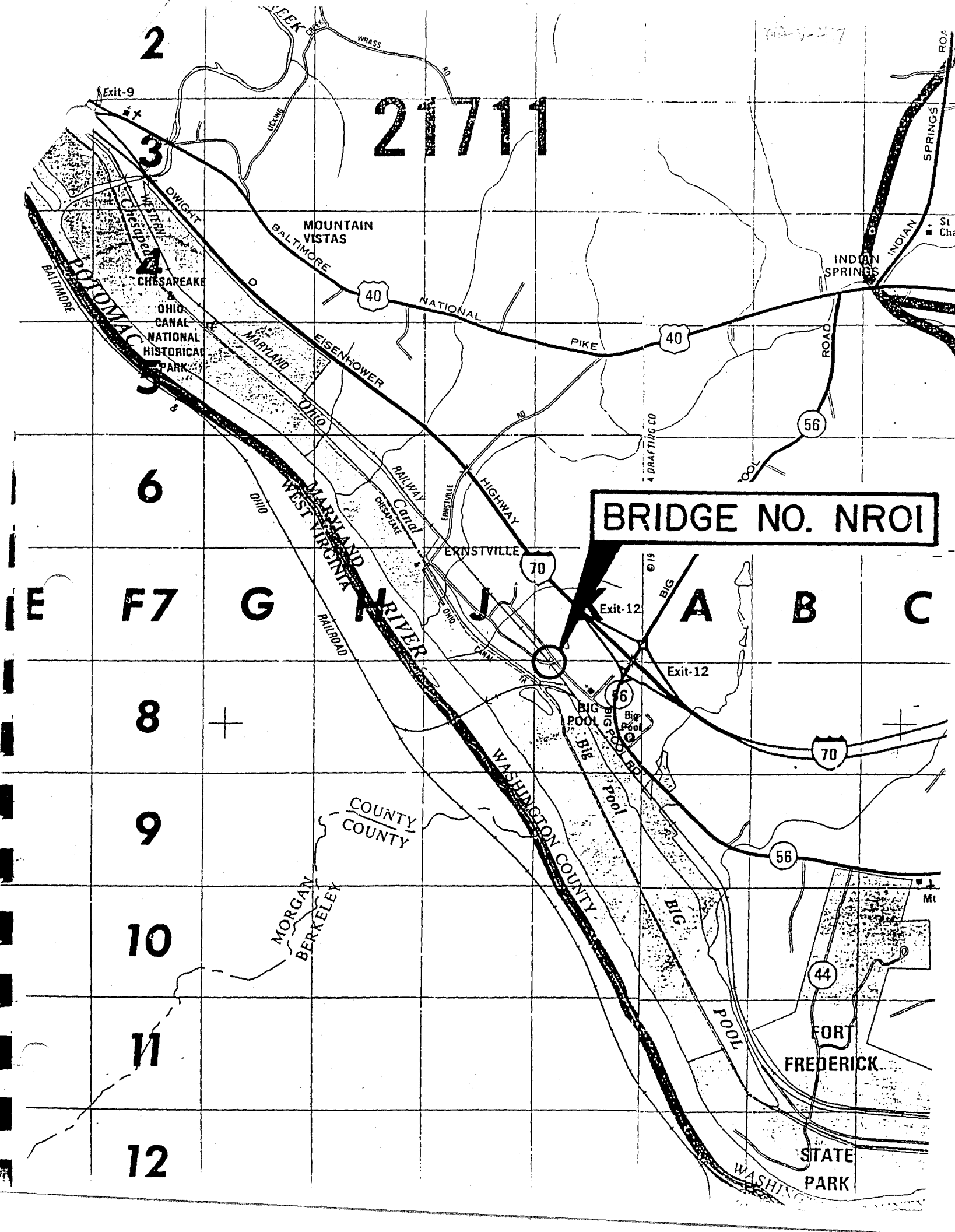
KENNEDY, PORTER & ASSOCIATES, INC.

DETAIL 2

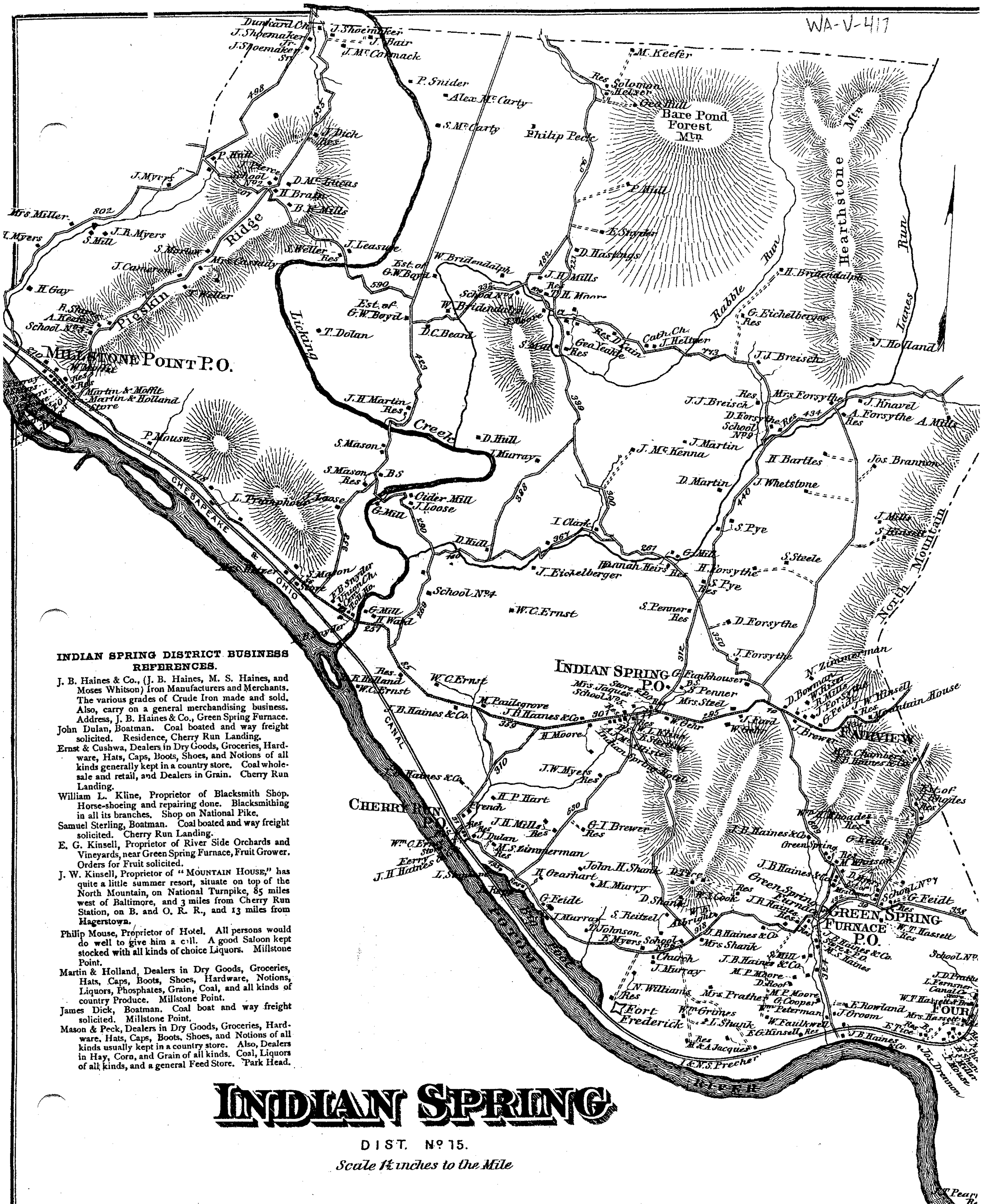
Scale: 1"=1'-0"

WASHINGTON COUNTY
DEPARTMENT OF NATURAL RESOURCES
BRIDGE NO. W-NRO1
ERNSTVILLE ROAD
OVER
ABANDONED CSX RAILROAD

WA-V-417


2711
BRIDGE NO. NROI
Exit-9
Exit-12
Exit-12
MOUNTAIN VISTAS
INDIAN SPRINGS
NATIONAL PIKE
BALTIMORE
POTOMAC
CHESAPEAKE & OHIO CANAL NATIONAL HISTORICAL PARK
MARYLAND
WEST VIRGINIA
Ohio
RIVER
ERNSTVILLE
HIGHWAY
RAILWAY
RAILROAD
Canal
CHESAPEAKE
EISENHOWER
DWIGHT
ROAD
SPRINGS
INDIAN
BIG POOL
Big Pool
BIG POOL ROAD
WASHINGTON COUNTY
COUNTY
COUNTY
MORGAN
BERKELEY
FORT FREDERICK
STATE PARK
POOL
BIG
DRAFTING CO
WRASS
ROAD
70
40
56
44
A
B
C
E
F7
G
H
J
2
3
5
6
8
9
10
11
12

WA-V-417



INDIAN SPRING DISTRICT BUSINESS REFERENCES.

J. B. Haines & Co., (J. B. Haines, M. S. Haines, and Moses Whitson) Iron Manufacturers and Merchants. The various grades of Crude Iron made and sold. Also, carry on a general merchandising business. Address, J. B. Haines & Co., Green Spring Furnace.

John Dulan, Boatman. Coal boated and way freight solicited. Residence, Cherry Run Landing.

Ernst & Cushwa, Dealers in Dry Goods, Groceries, Hardware, Hats, Caps, Boots, Shoes, and Notions of all kinds generally kept in a country store. Coal wholesale and retail, and Dealers in Grain. Cherry Run Landing.

William L. Kline, Proprietor of Blacksmith Shop. Horse-shoeing and repairing done. Blacksmithing in all its branches. Shop on National Pike.

Samuel Sterling, Boatman. Coal boated and way freight solicited. Cherry Run Landing.

E. G. Kinsell, Proprietor of River Side Orchards and Vineyards, near Green Spring Furnace, Fruit Grower. Orders for Fruit solicited.

J. W. Kinsell, Proprietor of "MOUNTAIN HOUSE," has quite a little summer resort, situate on top of the North Mountain, on National Turnpike, 85 miles west of Baltimore, and 3 miles from Cherry Run Station, on B. and O. R. R., and 13 miles from Hagerstown.

Philip Mouse, Proprietor of Hotel. All persons would do well to give him a call. A good Saloon kept stocked with all kinds of choice Liquors. Millstone Point.

Martin & Holland, Dealers in Dry Goods, Groceries, Hats, Caps, Boots, Shoes, Hardware, Notions, Liquors, Phosphates, Grain, Coal, and all kinds of country Produce. Millstone Point.

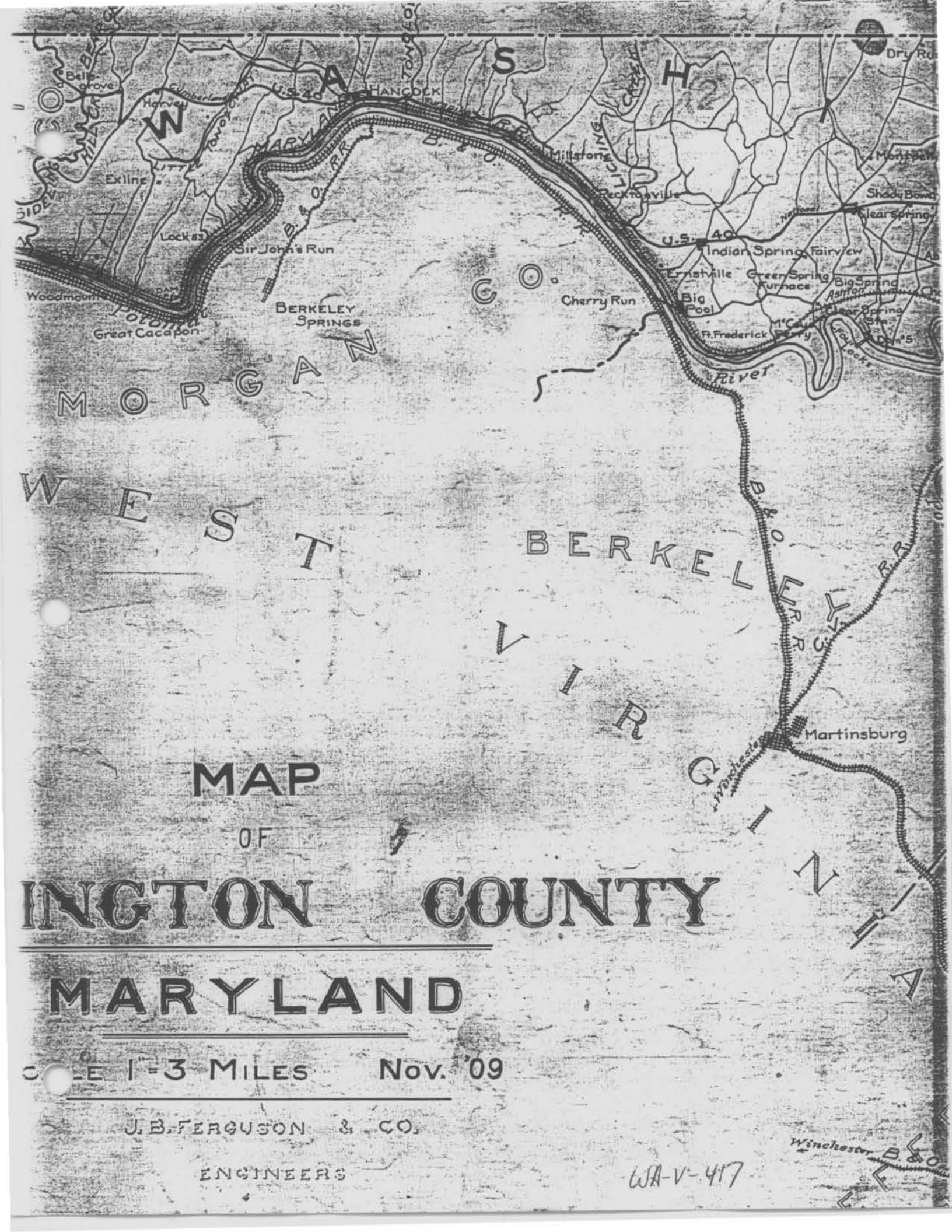
James Dick, Boatman. Coal boat and way freight solicited. Millstone Point.

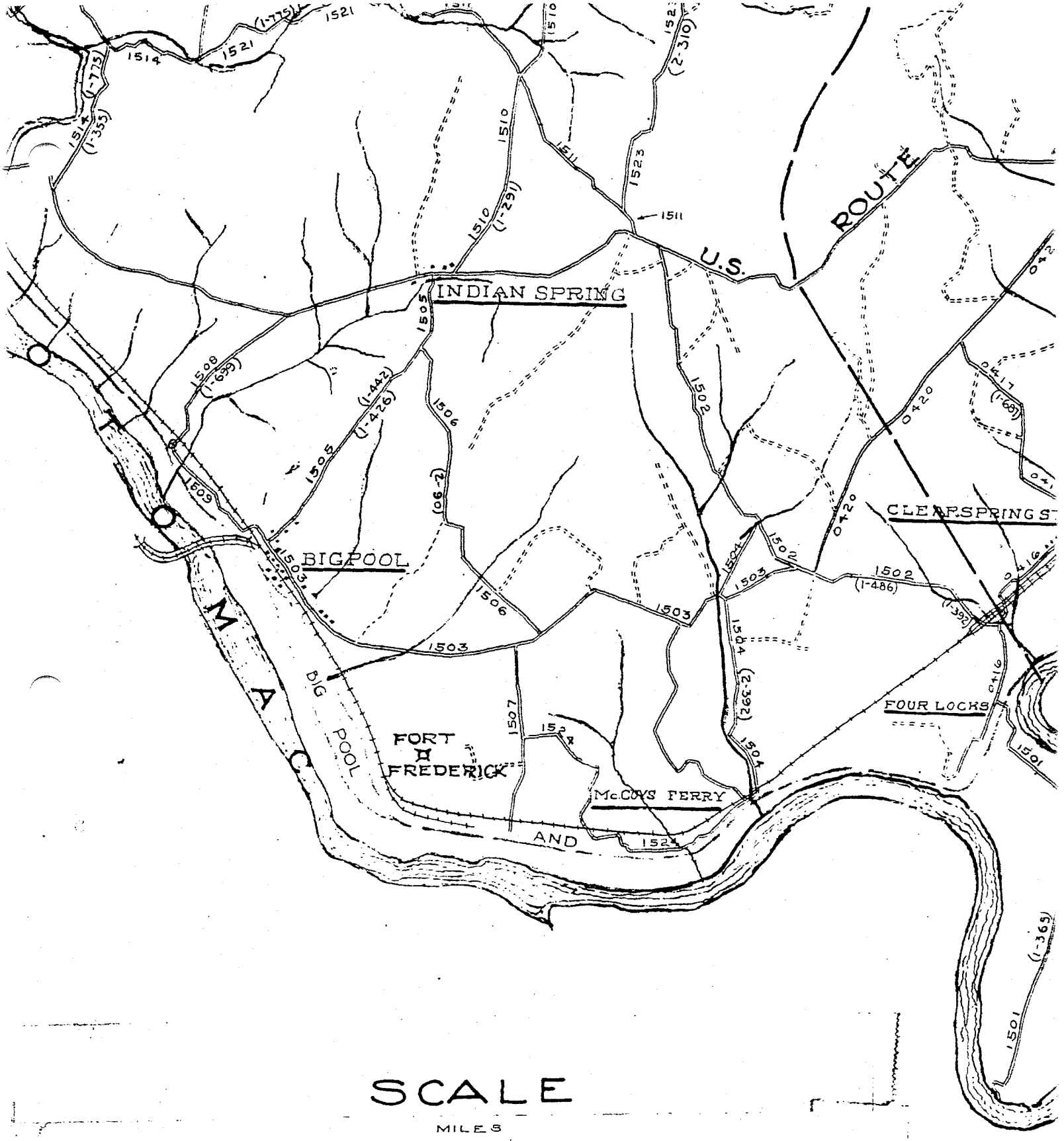
Mason & Peck, Dealers in Dry Goods, Groceries, Hardware, Hats, Caps, Boots, Shoes, and Notions of all kinds usually kept in a country store. Also, Dealers in Hay, Corn, and Grain of all kinds. Coal, Liquors of all kinds, and a general Feed Store. Park Head.

INDIAN SPRING

DIST. No. 15.

Scale 1¼ inches to the Mile


MAP
OF
INGTON COUNTY
MARYLAND
E 1"=3 MILES Nov. '09
J. B. FERGUSON & CO.
ENGINEERS
WA-V-417
MORGAN CO.
WEST VIRGINIA
BERKELEY
Martinsburg
Berkeley Springs
Great Cacapon
Cherry Run
Sir John's Run
Woodmont
Exline
Harvey
Bellegrove
Millstone
Indian Spring
Fairview
Ernstville
Green Spring Furnace
Big Pool
Ft. Frederick
Shady Bower
Clear Spring
Dry Ru
Winchester
Winchester B. & O.



SCALE

MILES

1/2 0 1 2 3

DRAWN BY

E. R. DARBY

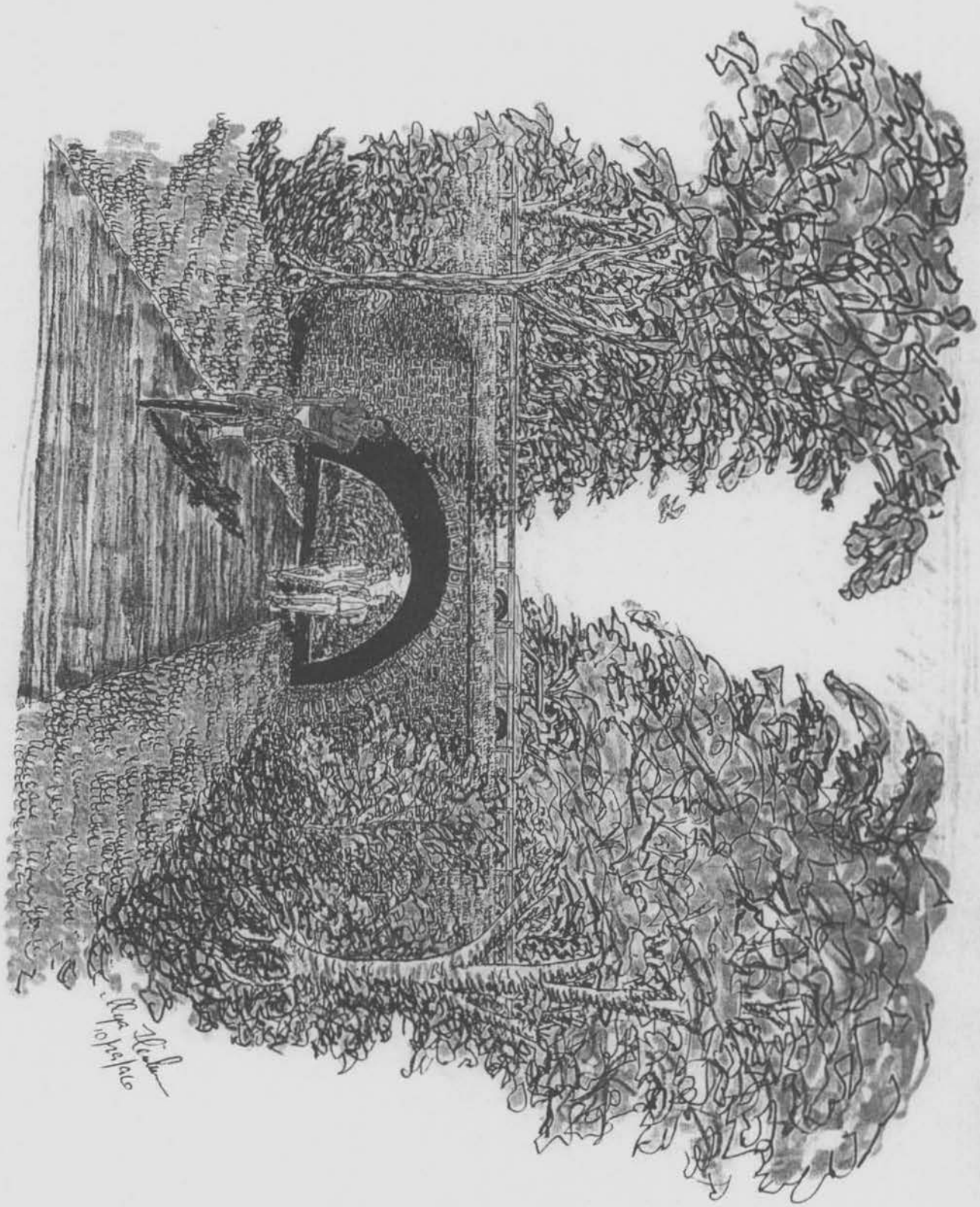
J. B. FERGUSON & CO. ENGINEERS

HAGERSTOWN MD.

REVISED OCTOBER '37

WA-V-417

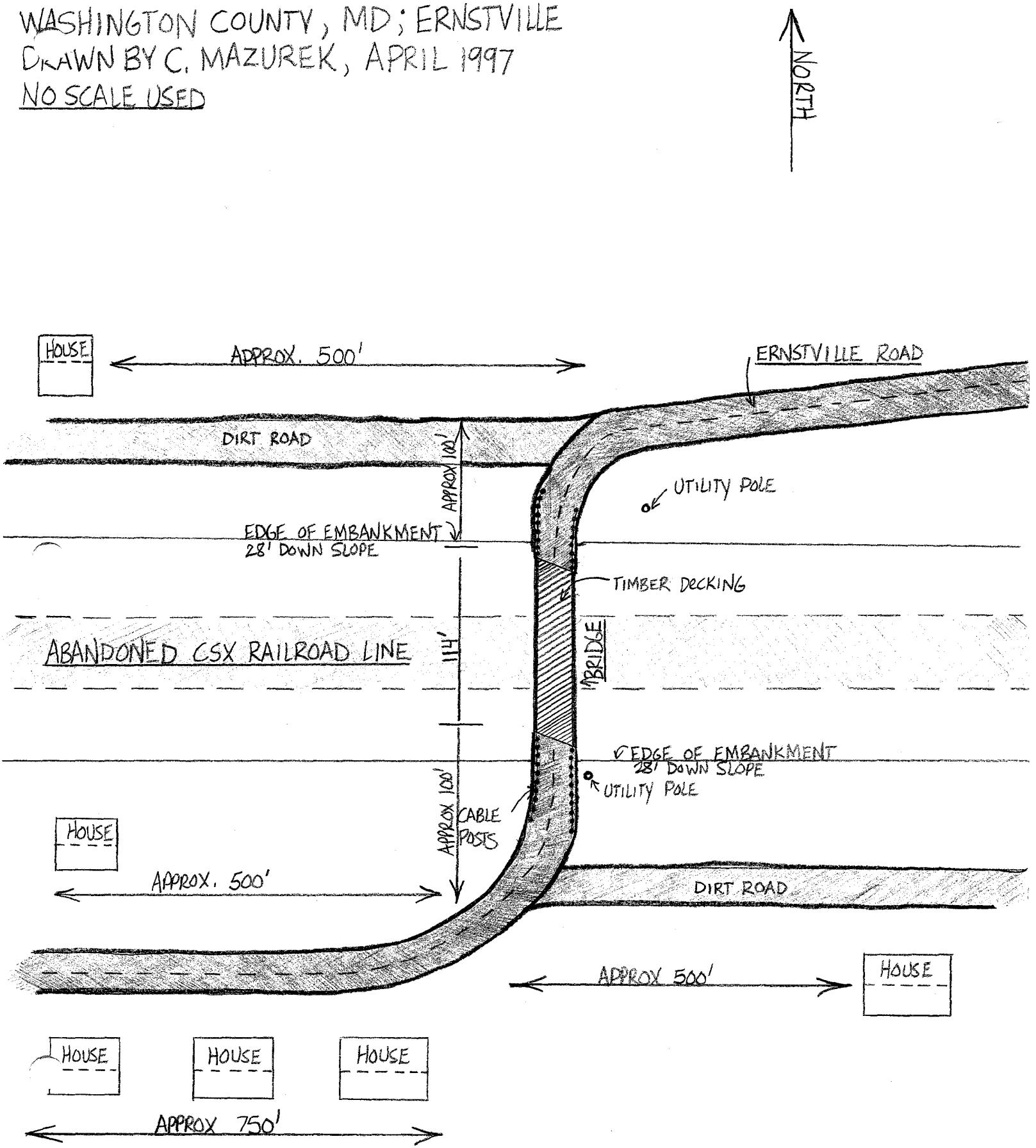
WA-V-417

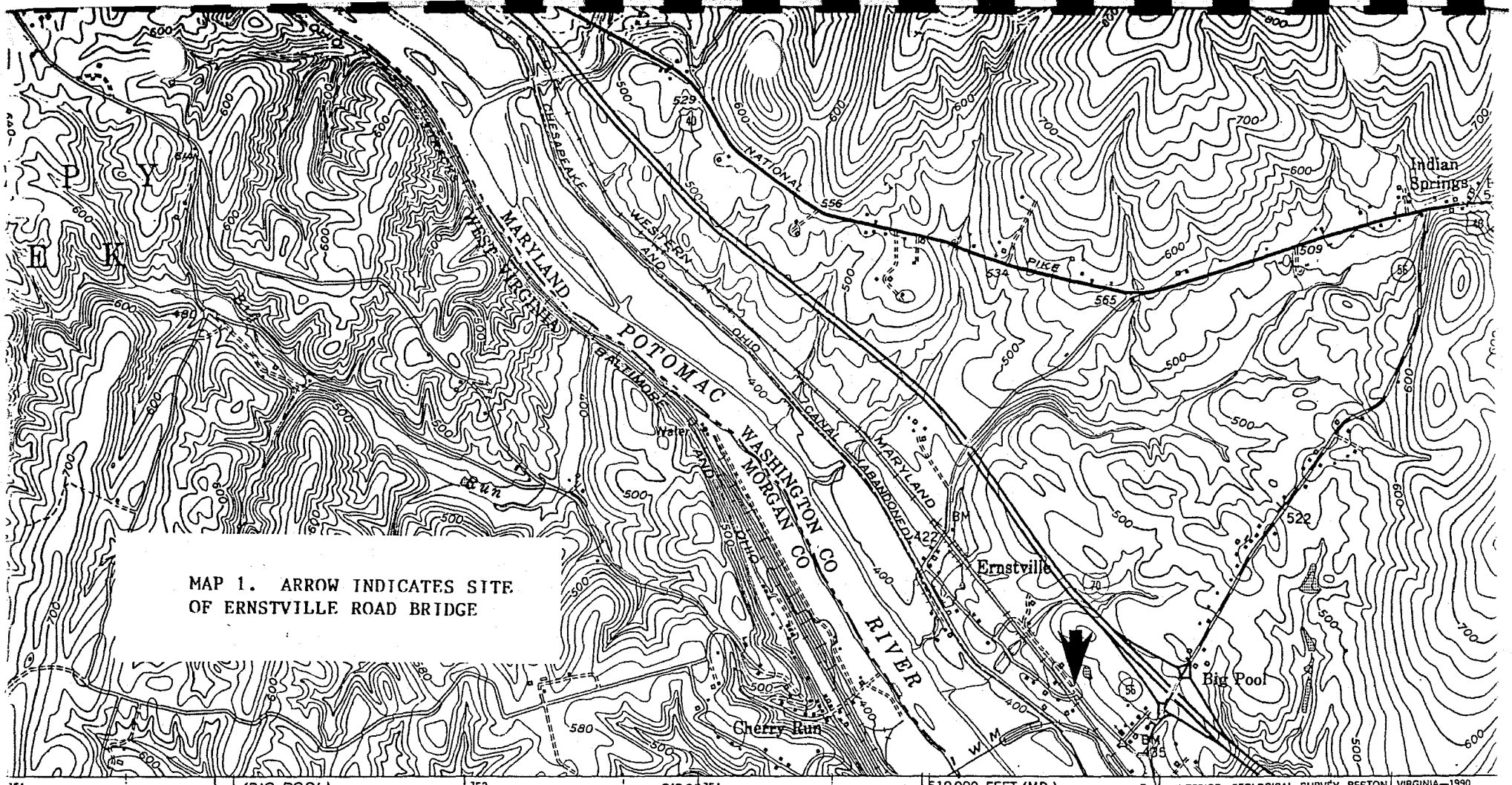


PROPOSED REPLACEMENT

WA-V-417

ERNSTVILLE ROAD BRIDGE
WASHINGTON COUNTY, MD; ERNSTVILLE
DRAWN BY C. MAZUREK, APRIL 1997
NO SCALE USED





SCALE 1:24000

1 MILE

7000 FEET

1 KILOMETER

CONTOUR INTERVAL 20 FEET

DATUM IS MEAN SEA LEVEL

QUADRANGLE LOCATION

ROAD CLASSIFICATION

Heavy-duty — 4 LANE | 6 LANE — Light-duty

Medium-duty — 4 LANE | 6 LANE — Unimproved dirt

U. S. Route — State Route

Interstate Route

CHERRY RUN, MD.-W. VA.-PA

NE/4 HANCOCK 15' QUADRANGLE

N3937.5—W7800/7.5

PHOTOINSPECTED 1984

1951

PHOTOREVISED 1971

AMS 5363 II NE—SERIES V833

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY
DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
ER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

WA-V-417

ERNSTVILLE RD. BRIDGE

WASHINGTON CO., MD

C. MAZUREK, DNR

4/97

99 0111 NNNN 21831

MARYLAND SHPO

VIEW NORTH, OF UNDERSIDE OF BRIDGE

#1 OF 11

WA-V-417
ERNSTVILLE RD. BRIDGE
WASHINGTON CO., MD
C. MAZUREK, DNR
4/97
MARYLAND SHPO
VIEW N.W.
#2 OF 11

99 0111 N N N 2 17 49

WA-V-417
ERNSTVILLE RD. BRIDGE
WASHINGTON CO., MD
C. MAZUREK, DNR
4/97
MARYLAND SHPO
VIEW NORTH FROM DECK
#3 OF 11

99 0111 N N N 2 17 44

WA-V-417
ERNSTVILLE RD. BRIDGE
WASHINGTON CO., MD
C. MAZUREK, DNR
4/97
MARYLAND SHPO
VIEW OF SOUTH (RIGHT) ABUTMENT
4 OF 11

99 0111 N N N 2 18 32

WA-V-417
ERNSTVILLE RD. BRIDGE
WASHINGTON CO., MD
C. MAZUREK, DNR
4/97
MARYLAND SHPO
VIEW OF THE WEST SIDE OF BRIDGE
#5 OF 11

99 0111 N N N 2 17 38

WA-V-417
ERNSTVILLE RD. BRIDGE
WASHINGTON CO., MD
C. MAZUREK, DNR
4/97
MARYLAND SHPO
VIEW OF EAST SIDE OF BRIDGE
#6 OF 11

99 0111 NNNN 2 18 37

WA-V-417
ERNSTVILLE RD. BRIDGE
WASHINGTON CO., MD.
C. MAZUREK, DNR
4/97
MARYLAND SHPO
VIEW N.W.
#7 OF 11

99 0111 N N N N2 17 41

WA-V-417
ERNSTVILLE RD. BRIDGE
WASHINGTON CO., MD
C. MAZUREK, DNR
4/97
MARYLAND SHPO
VIEW N.E.
#8 OF 11

99 0111 N NN N2174E

WA-V-417
ERNSTVILLE RD. BRIDGE
WASHINGTON CO., MD
C. MAZUREK, DNR
4/97
MARYLAND SHPO
VIEW N.W.
#9 OF 11

99 0111 NNNN 2 18 29

WA-V-417
ERNSTVILLE RD. BRIDGE
WASHINGTON CO., MD
C. MAZUREK, DNR
4/97
MARYLAND SHPO
VIEW S.E.
#10 OF 11

99 0111 NNN N217 42


SINGLE UNIT
10,000 LBS GVW
COMBINATION UNIT
10,000 LBS GCW

WA-V-417
ERNSTVILLE RD. BRIDGE
WASHINGTON CO., MD
C. MAZUREK, DNR
4/97
MARYLAND SHPO
VIEW SOUTH
#11 OF 11

99 0111 NN N-2 2 17 53