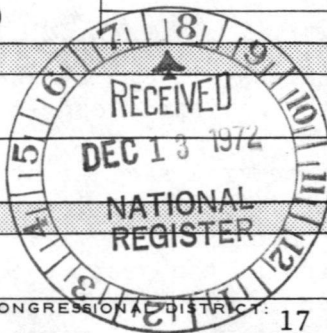


NATIONAL REGISTER OF HISTORIC PLACES  
INVENTORY - NOMINATION FORM

(Type all entries - complete applicable sections)

STATE:	Ohio
COUNTY:	Muskingum
FOR NPS USE ONLY	
ENTRY DATE	APR 23 1973



1. NAME	
COMMON:	"S" Bridge II
AND/OR HISTORIC:	

2. LOCATION	
STREET AND NUMBER: U.S. Route 40	
CITY OR TOWN: West of New Concord	CONGRESSIONAL DISTRICT: 17
STATE: Ohio	COUNTY: Muskingum
CODE: 039	CODE: 119

3. CLASSIFICATION			
CATEGORY (Check One)	OWNERSHIP	STATUS	ACCESSIBLE TO THE PUBLIC
<input type="checkbox"/> District <input type="checkbox"/> Building <input type="checkbox"/> Site <input checked="" type="checkbox"/> Structure <input type="checkbox"/> Object	<input checked="" type="checkbox"/> Public <input type="checkbox"/> Private <input type="checkbox"/> Both	<input checked="" type="checkbox"/> Occupied <input type="checkbox"/> Unoccupied <input type="checkbox"/> Preservation work in progress	Yes: <input type="checkbox"/> Restricted <input checked="" type="checkbox"/> Unrestricted <input type="checkbox"/> No
PRESENT USE (Check One or More as Appropriate)			
<input type="checkbox"/> Agricultural <input type="checkbox"/> Commercial <input type="checkbox"/> Educational <input type="checkbox"/> Entertainment	<input type="checkbox"/> Government <input type="checkbox"/> Industrial <input type="checkbox"/> Military <input type="checkbox"/> Museum	<input checked="" type="checkbox"/> Park <input type="checkbox"/> Private Residence <input type="checkbox"/> Religious <input type="checkbox"/> Scientific	<input type="checkbox"/> Transportation <input type="checkbox"/> Other (Specify) _____ _____ _____ <input type="checkbox"/> Comments _____ _____ _____

4. OWNER OF PROPERTY	
OWNER'S NAME: State of Ohio Department of Highways	
STREET AND NUMBER: 25 South Front Street	
CITY OR TOWN: Columbus	STATE: Ohio
	CODE: 039

5. LOCATION OF LEGAL DESCRIPTION	
COURTHOUSE, REGISTRY OF DEEDS, ETC: Muskingum County Courthouse	
STREET AND NUMBER:	
CITY OR TOWN: Zanesville	STATE: Ohio
	CODE: 039

6. REPRESENTATION IN EXISTING SURVEYS	
TITLE OF SURVEY:	
DATE OF SURVEY: <input type="checkbox"/> Federal <input type="checkbox"/> State <input type="checkbox"/> County <input type="checkbox"/> Local	
DEPOSITORY FOR SURVEY RECORDS:	
STREET AND NUMBER:	
CITY OR TOWN:	STATE:
	CODE:

STATE:

Ohio

COUNTY:

Muskingum

ENTRY NUMBER

DATE

FOR NPS USE ONLY

APR

23 1973

## 7. DESCRIPTION

CONDITION	(Check One)					
	<input checked="" type="checkbox"/> Excellent	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Deteriorated	<input type="checkbox"/> Ruins	<input type="checkbox"/> Unexposed
	(Check One)			(Check One)		
	<input checked="" type="checkbox"/> Altered	<input type="checkbox"/> Unaltered	<input type="checkbox"/> Moved	<input checked="" type="checkbox"/> Original Site		

DESCRIBE THE PRESENT AND ORIGINAL (if known) PHYSICAL APPEARANCE

Located just west of New Concord, Ohio at the point where U.S. Route 40 crosses Fox Creek, is an "S" shaped masonry bridge which was constructed as part of the National Road in 1828.

It is one of several similar structures built in Ohio and Pennsylvania and is approximately 140 feet long and 26 feet wide. A single arch of 30 feet spans the creek along a line perpendicular to the flow of the stream. On either side of the arch, the floor of the bridge curves. On the east end the curve is slightly less than 20° south; on the west end the curve is slightly less than 22° north. The walls of the bridge and the vault are constructed of cut stone of varying sizes in courses of 1 foot or more. The floor is built of brick. Except for the brick floor and some repointing, the bridge is unaltered, and is in very good condition.

The "S" design of the bridge is functional. It avoids sharp, angular curves at the approaches, cuts down the length of the arch needed to span the stream, and avoids steep grades and protects the back fill from erosion. In the case of this bridge, as well as other "S" bridges in Washington, Hendrysburg, and Middleborne, Ohio, the road approaches the stream at an angle. To bridge the stream at the center line would have required a longer arch, more excavation and greater expense.



SEE INSTRUCTIONS

## 8. SIGNIFICANCE

PERIOD (Check One or More as Appropriate)

☐ Pre-Columbian☐ 16th Century☐ 18th Century☐ 20th Century☐ 15th Century☐ 17th Century☒ 19th Century

SPECIFIC DATE(S) (If Applicable and Known)

1828

AREAS OF SIGNIFICANCE (Check One or More as Appropriate)

Aboriginal

☐ Prehistoric☐ Historic☐ Agriculture☐ Architecture☐ Art☒ Commerce☐ Communications☐ Conservation☐ Education☒ Engineering☐ Industry☐ Invention☐ Landscape☐ Architecture☐ Literature☐ Military☐ Music☐ Political☐ Religion/Phi-

losophy

☐ Science☐ Sculpture☐ Social/Human-

itarian

☐ Theater☒ Transportation☐ Urban Planning☐ Other (Specify)

## STATEMENT OF SIGNIFICANCE

The "S" shaped bridges have attracted widespread curiosity as to why they were built in such a peculiar shape. Some writers have suggested that Benjamin Latrobe, the engineer who designed bridges along the National Road, believed that a curved structure would withstand the force of water better than a straight span. Others have attributed the "S" curves to an attempt to keep surface water from draining down the roadway and causing gullies. Still others have suggested that the bridges were "Irish built and Englishmen planned", or that stonemasons, who were paid by the foot, knew that a curved structure would produce more income. These stories are largely untrue.

The National Road "S" bridges were built shortly before the advent of the beam structures, perfected by the railroads. The fact that they served for a century, often without any repair and under far greater loads than their designers could have foreseen, is evidence of their excellent design. The New Concord bridge is passable today with no load limits imposed.

With the coming of the automobile, and faster speeds, the bridges became a hazard to transportation. In 1936, the Ohio Chapter of the Daughters of the American Revolution convinced the Ohio Highway Department to build around the old structures instead of replacing them with new bridges.

The "S" Bridge II at New Concord is one of five original National Road S bridges extant in eastern Ohio.



H13  
2m17  
N 4427030  
E 436260

9. MAJOR BIBLIOGRAPHICAL REFERENCES

Hulber, A.B. "The Old National Road, The Historic Highway of America,"  
Ohio Archaeological and Historical Society Publican,  
IX (1901).  
Jordan, P.D., The National Road, Indianapolis; Bob Merril Co., 1948, p.85.  
McKee, Harley J., "Original Bridges on the National Road in Eastern Ohio"  
paper presented at the First Annual Conference of the  
Society for Industrial Archaeology, Cooper Union,  
New York City, April 8, 1972.  
Stone, M.A., "The Old "S" Bridges In Ohio," The D.A.R. Magazine, Vol. 70 pp  
1116-1117.

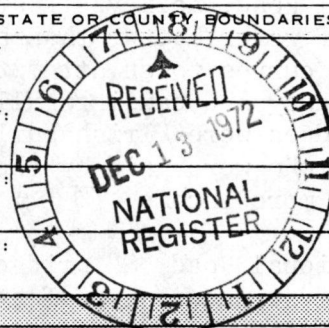
10. GEOGRAPHICAL DATA

LATITUDE AND LONGITUDE COORDINATES DEFINING A RECTANGLE LOCATING THE PROPERTY			O R	LATITUDE AND LONGITUDE COORDINATES DEFINING THE CENTER POINT OF A PROPERTY OF LESS THAN TEN ACRES		
CORNER	LATITUDE	LONGITUDE		LATITUDE	LONGITUDE	
	Degrees Minutes Seconds	Degrees Minutes Seconds		Degrees Minutes Seconds	Degrees Minutes Seconds	
NW	0' 0" 0"	0' 0" 0"	N 39° 59' 35" W 81° 44' 47"			
NE	0' 0" 0"	0' 0" 0"				
SE	0' 0" 0"	0' 0" 0"				
SW	0' 0" 0"	0' 0" 0"				

APPROXIMATE ACREAGE OF NOMINATED PROPERTY: 1 acre

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE:	CODE	COUNTY	CODE
STATE:	CODE	COUNTY:	CODE
STATE:	CODE	COUNTY:	CODE
STATE:	CODE	COUNTY:	CODE



11. FORM PREPARED BY

NAME AND TITLE:  
Amos J. Loveday, Jr.  
ORGANIZATION \_\_\_\_\_ DATE July, 1972  
STREET AND NUMBER:  
5479-B Rockwood Ct.  
CITY OR TOWN: Columbus STATE Ohio CODE 039

12. STATE LIAISON OFFICER CERTIFICATION

NATIONAL REGISTER VERIFICATION

As the designated State Liaison Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service. The recommended level of significance of this nomination is:

National ☐ State ☒ Local ☐

Name Daniel R. Smith

Title Ohio Liaison Officer

Date 11 December 1972

I hereby certify that this property is included in the National Register.

Robert M. Utley  
Director, Office of Archeology and Historic Preservation

Date 4/23/73

ATTEST:  
[Signature]  
Keeper of The National Register

Date 4 18 73

SEE INSTRUCTIONS

PROPERTY

"S" Bridge II

STATE

Ohio

WORKING NUMBER

12.13.72.1927

Muskingham

TECH REVIEW

Photos

4

Maps

1

CONTROL REVIEW

HISTORIAN

ARCHITECTURAL HISTORIAN

latrobe bridge! neat.

~~ARCHAEOLOGIST~~

HISTORIC AMERICAN ENGINEERING RECORD

INVENTORIED By HAER End 3/23/73

There are 13 orig. National Road bridges in Ohio between the towns of Blaine & Gratiot of which 5 are of the S-type. There are probably other Nat'l. Road features such as milestones and taverns, tollhouses and inns. Wouldn't it be more logical to assess all these structures and submit a package for registration rather than (more)

REVIEW UNIT CHIEF

BRANCH CHIEF

KEEPER

National Register write-up

Send-back

Federal Register entry

6-5-73

Re-submit

Entered

APR 23 1973

Photographs

one-by-one? Though Old Rte. 40 has been broken into many sections by new interstates and highways and couldn't be considered integral, it would seem to me that a better form of preservation may result by registering related structures together rather than piecemeal. END 3/23/73



NPS Number 4/23/72

Title: "S" Bridge

Form No. 10-301a  
(7/72)

UNITED STATES DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES  
PROPERTY PHOTOGRAPH FORM

(Type all entries - attach to or enclose with photograph)

Loc. Muskingum

View of bridge

STATE		Ohio	
COUNTY		Muskingum	
FOR NPS USE ONLY			
ENTRY NUMBER		DATE	
APR 23 1972		APR 23 1972	

RECEIVED  
DEC 13 1972  
NATIONAL  
REGISTER

SEE INSTRUCTIONS

1. NAME			
COMMON: "S" Bridge II			
AND/OR HISTORIC:			
2. LOCATION			
STREET AND NUMBER:			
U.S. Route 40			
CITY OR TOWN:			
West of New Concord			
STATE:	CODE	COUNTY:	CODE
Ohio	039	Muskingum	119
3. PHOTO REFERENCE			
PHOTO CREDIT: Amos J. Loveday, Jr.			
DATE OF PHOTO: July 1972			
NEGATIVE FILED AT:			
Amos J. Loveday, Jr.			
4. IDENTIFICATION			
DESCRIBE VIEW, DIRECTION, ETC.			
View of bridge floor looking west.			

PROPERTY



Form No. 10-301a  
(7/72)

UNITED STATES DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES  
PROPERTY PHOTOGRAPH FORM

(Type all entries - attach to or enclose with photograph)

STATE		Ohio
COUNTY		Muskingum
FOR NPS USE ONLY		
ENTRY NUMBER	DATE	
	APR 23 1973	

SEE INSTRUCTIONS

1. NAME

COMMON: "S" Bridge II  
AND/OR HISTORIC:

2. LOCATION

STREET AND NUMBER:

U.S. Route 40

CITY OR TOWN:

West of New Concord

STATE:

Ohio

CODE

039

COUNTY:

Muskingum

CODE

119

3. PHOTO REFERENCE

PHOTO CREDIT: Amos J. Loveday, Jr.

DATE OF PHOTO: July 1972

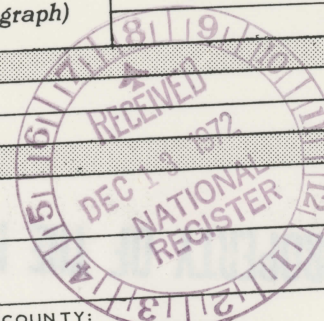
NEGATIVE FILED AT:

Amos J. Loveday, Jr.

4. IDENTIFICATION

DESCRIBE VIEW, DIRECTION, ETC.

View of the south wall and arch.





NPS Number 4/23/73

Title: "S"

Loc. Musk

VIEW OF

FROM DECK

(3)

PROPERTY OF THE NATIONAL PARK SERVICE

Form No. 10-301a  
(7/72)

UNITED STATES DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE

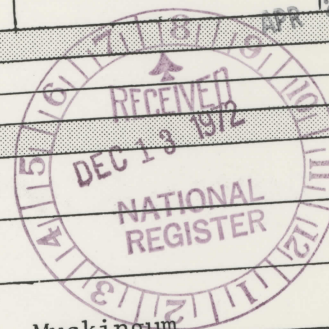
NATIONAL REGISTER OF HISTORIC PLACES  
PROPERTY PHOTOGRAPH FORM

(Type all entries - attach to or enclose with photograph)

STATE Ohio	
COUNTY Muskingum	
FOR NPS USE ONLY	
ENTRY NUMBER	DATE APR 23 1973

SEE INSTRUCTIONS

1. NAME			
COMMON: "S" Bridge II			
AND/OR HISTORIC:			
2. LOCATION			
STREET AND NUMBER: U.S. Route 40			
CITY OR TOWN: West of New Concord			
STATE: Ohio	CODE 039	COUNTY: Muskingum	CODE 119
3. PHOTO REFERENCE			
PHOTO CREDIT: Amos J. Loveday, Jr.			
DATE OF PHOTO: July, 1972			
NEGATIVE FILED AT: Amos J. Loveday, Jr.			
4. IDENTIFICATION			
DESCRIBE VIEW, DIRECTION, ETC. View of bridge looking west from the deck.			





NPS Number 4/23/73

Title: "S" Bridge II

Loc. Muskingum

view of

(4)

PRO

Form No. 10-301a  
(7/72)

UNITED STATES DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE

**NATIONAL REGISTER OF HISTORIC PLACES**

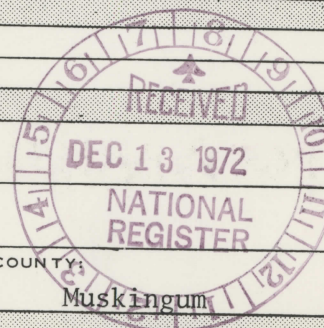
**PROPERTY PHOTOGRAPH FORM**

(Type all entries - attach to or enclose with photograph)

SEE INSTRUCTIONS

<b>1. NAME</b>			
COMMON: "S" Bridge II			
AND/OR HISTORIC:			
<b>2. LOCATION</b>			
STREET AND NUMBER: U.S. Route 40			
CITY OR TOWN: West of New Concord			
STATE: Ohio	CODE 039	COUNTY: Muskingum	CODE 119
<b>3. PHOTO REFERENCE</b>			
PHOTO CREDIT: Amos J. Loveday, Jr.			
DATE OF PHOTO: July, 1972			
NEGATIVE FILED AT: Amos J. Loveday, Jr.			
<b>4. IDENTIFICATION</b>			
DESCRIBE VIEW, DIRECTION, ETC.  View of the south wall looking west.			

STATE Ohio	
COUNTY Muskingum	
FOR NPS USE ONLY	
ENTRY NUMBER	DATE
	APR 23 1973



UNITED STATES DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE

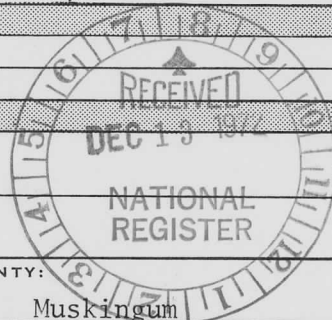
**NATIONAL REGISTER OF HISTORIC PLACES**  
**PROPERTY MAP FORM**

*(Type all entries - attach to or enclose with map)*

STATE  Ohio	
COUNTY  Muskingum	
FOR NPS USE ONLY	
ENTRY NUMBER  APR 29 1973	DATE

<b>1. NAME</b>			
COMMON: "S" Bridge II			
AND/OR HISTORIC:			
<b>2. LOCATION</b>			
STREET AND NUMBER: U.S. Route 40			
CITY OR TOWN: West of New Concord			
STATE: Ohio	CODE 039	COUNTY: Muskingum	CODE 119
<b>3. MAP REFERENCE</b>			
SOURCE: U.S.G.S. 7.5' New Concord Quadrangle			
SCALE: 1:24000			
DATE: 1961			
<b>4. REQUIREMENTS</b>			
TO BE INCLUDED ON ALL MAPS			
1. Property boundaries where required.			
2. North arrow.			
3. Latitude and longitude reference.			

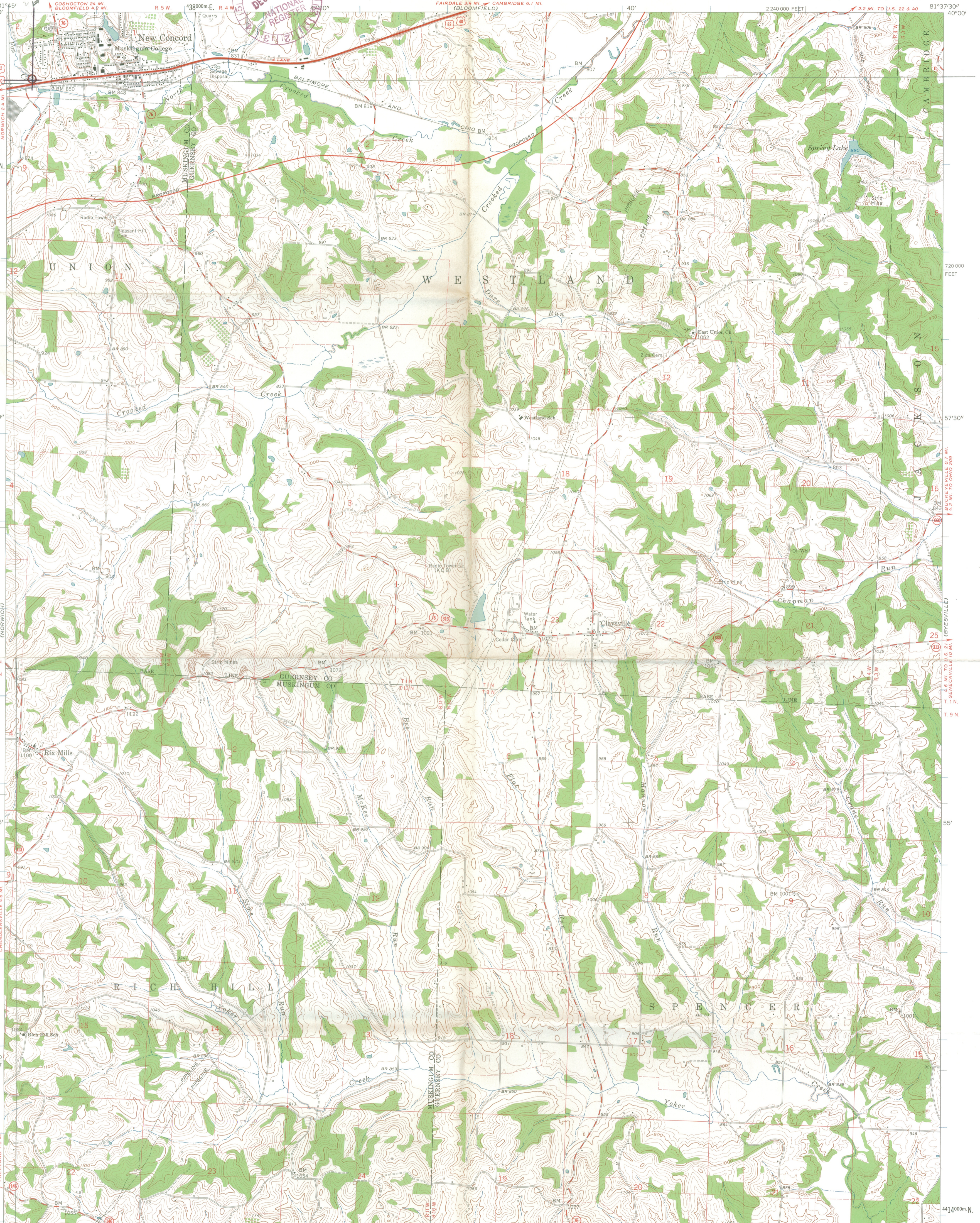
SEE INSTRUCTIONS





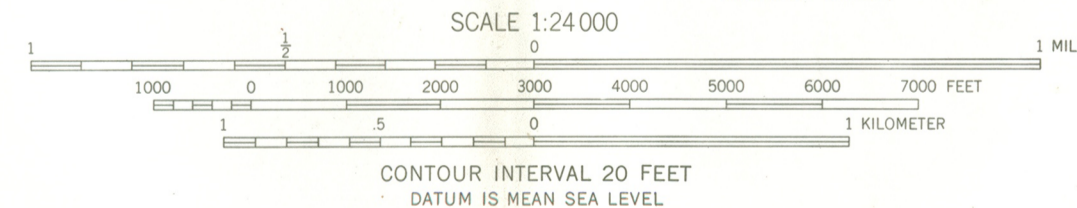
"S" Bridge II  
North Lat.  
39° 59' 35"  
West Long.  
81° 44' 47"

H5  
Zm17  
E 436260  
W 4427030



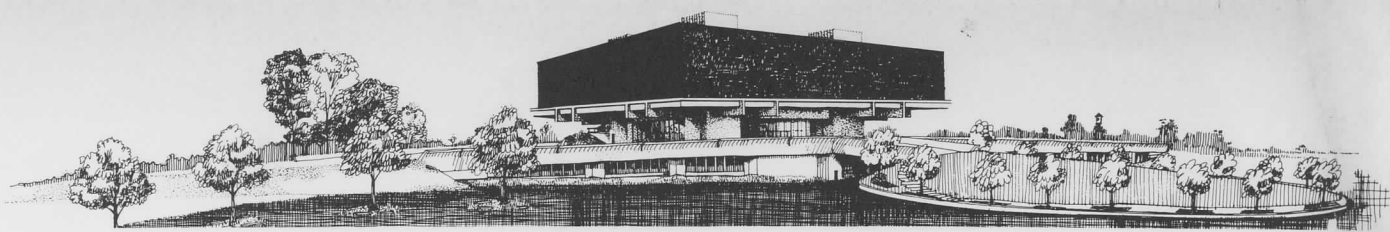
Mapped, edited, and published by the Geological Survey  
Control by USGS and USC&GS  
Topography by photogrammetric methods from aerial  
photographs taken 1960. Field checked 1961  
Polyconic projection, 1927 North American datum  
10,000-foot grid based on Ohio coordinate system, south zone  
1000-meter Universal Transverse Mercator grid ticks,  
zone 17, shown in blue  
Area north of Base Line lies within the United States Military District  
Land lines based on the Base Line of the United States Military District  
Area south of Base Line lies within Congress Lands  
east of the Scioto River  
Land lines based on the Ohio River Base  
Fine red dashed lines indicate selected fence and field lines where  
generally visible on aerial photographs. This information is unchecked

TRUE NORTH  
MAGNETIC NORTH  
APPROXIMATE MEAN  
DECLINATION, 1961



ROAD CLASSIFICATION  
Heavy-duty ——— Light-duty ———  
Medium-duty ——— Unimproved dirt ———  
U.S. Route ——— State Route ———

NEW CONCORD, OHIO  
NW/4 CUMBERLAND 15' QUADRANGLE  
N 3952.5-W 8137.5/7.5



Interstate 71 and 17th Avenue

the ohio historical society / ohio historical center / columbus, ohio 43211 / telephone (614) 469-4663

December 11, 1972



Dr. William J. Murtagh, Keeper  
National Register  
Department of Interior  
Washington, D. C. 20240

Dear Bill:

It pleases me to transmit to you herewith eight (8) completed National Register of Historic Place application forms for as many Ohio sites, buildings and structures.

These applications have been approved by the Ohio Historic Site Preservation Advisory Board and by their consultants for history. Owners of subject properties have been notified of the intent to register them.

To all who labor in this interesting vineyard in Washington, our best wishes for a happy holiday season.

Sincerely,

Daniel R. Porter  
Director

DRP/mu

Encl. Completed applications for:

"S" Bridge II, Muskingum County  
Maumee Sidecut, Lucas County  
Mad River and Lake Erie Railroad Groundbreaking Site, Erie County  
Groundbreaking Site for the Western Segment of the  
National Road, Belmont County  
Oak Hill, Ross County  
Lutz's Tavern, Lake County  
The Morrison House, Hamilton County  
Whiteman, Benjamin, House, Greene County

ENTRIES IN THE NATIONAL REGISTER

STATE OHIO

Date Entered APR 23 1973

<u>Name</u>	<u>Location</u>
Lutz's Tavern	Painesville Lake County
Mathews House	Painesville Lake County
College Hall, Wilmington College	Wilmington Clinton County
Erwin Hall, Marietta College	Marietta Washington County
Kent (Zeno) House	Aurora Portage County
Hale (Jonathan) Homestead	Bath Summit County
Morgan (John H.) Surrender Site	West Point Columbiana County
"S" Bridge II	New Concord Muskingum County
Elliott Hall, Sturges Library and Merrick Hall	Delaware Delaware County
Paul Hall, Muskingum College	New Concord
Hon. William B. Saxbe <u>Also Notified</u>	Muskingum County
Hon. Robert Taft, Jr.	State Historic Preservation Officer
Hon. J. William Stanton	Mr. Daniel R. Porter
Hon. Walter E. Powell	Director
Hon. Clarence E. Miller	The Ohio Historical Society
Hon. Charles A. Mosher	Columbus, Ohio 43211
Hon. Wayne L. Hays	
Hon. John M. Ashbrook	
Hon. Samuel L. Devine	
Director, Northeast Region	

PHR

NRowland:Imp 5-1-73