

United States Department of the Interior  
National Park Service

For NPS use only  
received **JUL 3 1986**  
date entered

# National Register of Historic Places Inventory—Nomination Form

See instructions in *How to Complete National Register Forms*  
Type all entries—complete applicable sections

## 1. Name

historic RIVER ROAD STONE ARCH RAILROAD BRIDGE

and/or common RIVER ROAD STONE ARCH RAILROAD BRIDGE

## 2. Location

street & number River Road and former Air Line railroad right-of-way <sup>N/A</sup> not for publication

city, town Colchester <sup>N/A</sup> vicinity of

state Connecticut code 09 county New London code 011

## 3. Classification

<b>Category</b>	<b>Ownership</b>	<b>Status</b>	<b>Present Use</b>
<input type="checkbox"/> district	<input checked="" type="checkbox"/> public	<input type="checkbox"/> occupied	<input type="checkbox"/> agriculture
<input type="checkbox"/> building(s)	<input type="checkbox"/> private	<input checked="" type="checkbox"/> unoccupied	<input type="checkbox"/> commercial
<input checked="" type="checkbox"/> structure	<input type="checkbox"/> both	<input type="checkbox"/> work in progress	<input type="checkbox"/> educational
<input type="checkbox"/> site	<b>Public Acquisition</b>	<b>Accessible</b>	<input type="checkbox"/> entertainment
<input type="checkbox"/> object	<input type="checkbox"/> in process	<input type="checkbox"/> yes: restricted	<input type="checkbox"/> government
	<input type="checkbox"/> being considered	<input checked="" type="checkbox"/> yes: unrestricted	<input type="checkbox"/> industrial
	N/A	<input type="checkbox"/> no	<input type="checkbox"/> military
			<input type="checkbox"/> museum
			<input type="checkbox"/> park
			<input type="checkbox"/> private residence
			<input type="checkbox"/> religious
			<input type="checkbox"/> scientific
			<input type="checkbox"/> transportation
			<input checked="" type="checkbox"/> other: None: Not

## 4. Owner of Property

name Connecticut Department of Transportation

street & number 24 Wolcott Hill Road

city, town Wethersfield <sup>N/A</sup> vicinity of state CT

## 5. Location of Legal Description

courthouse, registry of deeds, etc. Colchester Town Clerk

street & number Town Hall, 10 Norwich Avenue P.O. Box 146

city, town Colchester state Connecticut

## 6. Representation in Existing Surveys

title State Register of Historic Places has this property been determined eligible?  yes  no

date 1986  federal  state  county  local

depository for survey records Connecticut Historical Commission

59 South Prospect Street

city, town Hartford **AUG 15 1986** state Connecticut

## 7. Description

<b>Condition</b>		<b>Check one</b>	<b>Check one</b>
<input type="checkbox"/> excellent	<input type="checkbox"/> deteriorated	<input type="checkbox"/> unaltered	<input checked="" type="checkbox"/> original site
<input checked="" type="checkbox"/> good	<input type="checkbox"/> ruins	<input checked="" type="checkbox"/> altered	<input type="checkbox"/> moved    date _____
<input type="checkbox"/> fair	<input type="checkbox"/> unexposed		

**Describe the present and original (if known) physical appearance**

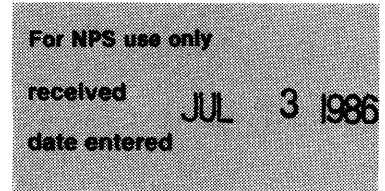
River Road Stone Arch Bridge, erected in 1887, is made of brownstone blocks in mortared ashlar and has a round-arched opening. It carried a single track of the New York and Boston Air Line Railroad over River Road, an unsurfaced road that follows the east bank of the Salmon River. The bridge stands within Salmon River State Forest; no buildings are visible from the site.

The arch spans 22 feet at the level of River Road and the opening has a maximum height of about 18 feet. The inside of the arch is corbeled out slightly at the bottom, added stability to the structure. The ring stones bear carved numbers in sequence, an aid to assembly that indicates the stones were fabricated elsewhere and then shipped to this site. The spandrels, like all the stone in the bridge, consist of rough-surfaced brownstone blocks. On either side parapets rise about four feet from the level where the tracks ran; they are capped by slightly projecting brownstone coping. At all four corners of the bridge, brownstone wingwalls retain the steeply sloped embankment that formed the approaches. The interior of the bridge--the space between the top of the arch and the track level, and between the spandrels--is filled with earth.

The bridge's historic appearance and setting are intact, and it appears to be structurally sound. A sewer pipe was embedded within the interior of the bridge in 1979, and the surface was backfilled and regraded to provide proper drainage. Inside the south parapet there is sloping asphalt fill, which prevents water runoff from eroding the earth surface of the bridge.

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Continuation sheet River Road Stone Arch Railroad Bridge  
Colchester, CT Item number 6

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6. Representation in Existing Surveys (continued):

Connecticut: An Inventory of Historic Engineering and Industrial Sites

Federal/State-1981 Historic American Engineering Record

Records deposited with Connecticut Historical Commission  
59 South Prospect Street  
Hartford, Connecticut 06106

Historic Structures Investigation prepared for the Colchester Water Pollution  
Authority

1979-Local

Records deposited with Connecticut Historical Commission  
59 South Prospect Street  
Hartford, Connecticut 06106

# 8. Significance

Period	Areas of Significance—Check and justify below			
prehistoric	archeology-prehistoric	community planning	landscape architecture	religion
1400-1499	archeology-historic	conservation	law	science
1500-1599	agriculture	economics	literature	sculpture
1600-1699	architecture	education	military	social/
1700-1799	art	<input checked="" type="checkbox"/> engineering	music	humanitarian
<input checked="" type="checkbox"/> 1800-1899	commerce	exploration/settlement	philosophy	theater
1900-	communications	industry	politics/government	<input checked="" type="checkbox"/> transportation
		invention		other (specify)

Criteria A,C

Specific dates	Builder/Architect
1887--built	not known

### Statement of Significance (in one paragraph)

River Road Stone Arch Bridge is significant as a representative example of the short, masonry railroad bridges of the 19th century (Criterion C). It is also significant for its associations with the New York and Boston Air Line Railroad, a notable failure among 19th-century transportation developments in Connecticut; with the New York, New Haven and Hartford Railroad, which dominated rail transport in the state; and with the beginnings of state regulation of public utilities (Criterion A).

The Air Line, which opened its complete route in 1873, was promoted by business interests primarily from the Middletown area, which had been without direct rail service until that time. The ambitious plan never overcame the serious topographical and economic obstacles that had delayed railroad development in the area. The steep and frequent ridges east of Middletown imposed initial capital costs for bridges, viaducts and grading that was far in excess of those for the first two east-west railroad lines in the state, the route along Long Island Sound that came under control of the New York, New Haven and Hartford, and the route through Hartford built by the Hartford, Providence and Fishkill. The Air Line's engineer, Edward W. Serrell of New York, had no choice but to build several monumental crossings over natural obstacles, notably Rapallo and Lyman viaducts. In the effort to economize where topography permitted, he generally avoided building bridges over roads, preferring instead simple grade crossings. When the Air Line opened in 1873, River Road was one such crossing.

The earlier east-west railroads had captured the through traffic that the Air Line promoters hoped would augment the revenues from traffic tied to their locality. The consequently limited market, combined with the Air Line's massive capital debt, made for a gloomy economic outlook. Since its route followed the most direct line between New Haven and Boston, the Air Line tried to win business by claiming quicker service than the competitors, a claim that was marginally valid but not enough of a difference to command substantial business. Moreover, the Air Line trains used the tracks of the New York, New Haven and Hartford between New Haven and New York, and the larger railroad set the use and connection fees very high for the Air Line, compounding the Air Line's parlous financial position. The Air Line lasted about ten years before succumbing to the inevitable and selling out at bargain rates to the New York, New Haven and Hartford. By the mid-1880s, railroad traffic had increased in speed and frequency, making grade crossings more dangerous for pedestrians and

(continued)

# 9. Major Bibliographical References

Connecticut Railroad Commissioners, Annual Report, 1873-1912.

Stanley M. Cooper, "The Air Line," 1970, typescript in The Middletown Collection, Russell Library, Middletown, CT.

# 10. Geographical Data

Acreage of nominated property less than 1

Quadrangle name Moodus

Quadrangle scale 1:24000

### UTM References

A 

1	8	7	1	4	6	1	0	4	6	0	6	1	6	0
Zone				Easting				Northing						

B 

Zone				Easting				Northing						

C 

Zone				Easting				Northing						

D 

Zone				Easting				Northing						

E 

Zone				Easting				Northing						

F 

Zone				Easting				Northing						

G 

Zone				Easting				Northing						

H 

Zone				Easting				Northing						

### Verbal boundary description and justification

The nominated property includes only the bridge, including its abutments. See Figure 1.

### List all states and counties for properties overlapping state or county boundaries

N/A

state code county code

state code county code

# 11. Form Prepared By

name/title Bruce Clouette and Matthew Roth, edited by John Herzan, National Register Coordinator

organization Historic Resource Consultants date February 4, 1986

The Colt Armory

street & number 55 Van Dyke Avenue telephone (203) 547-0268


city or town Hartford state Connecticut

# 12. State Historic Preservation Officer Certification

The evaluated significance of this property within the state is:

national  state  local

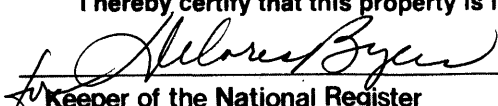
As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National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

State Historic Preservation Officer signature 

title Director, Connecticut Historical Commission date June 24, 1986

### For NPS use only

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

 Entered in the National Register date 8/21/86  
Keeper of the National Register

Attest: \_\_\_\_\_ date \_\_\_\_\_

Chief of Registration

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River Road Stone Arch Railroad Bridge  
Colchester, CT

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Continuation sheet

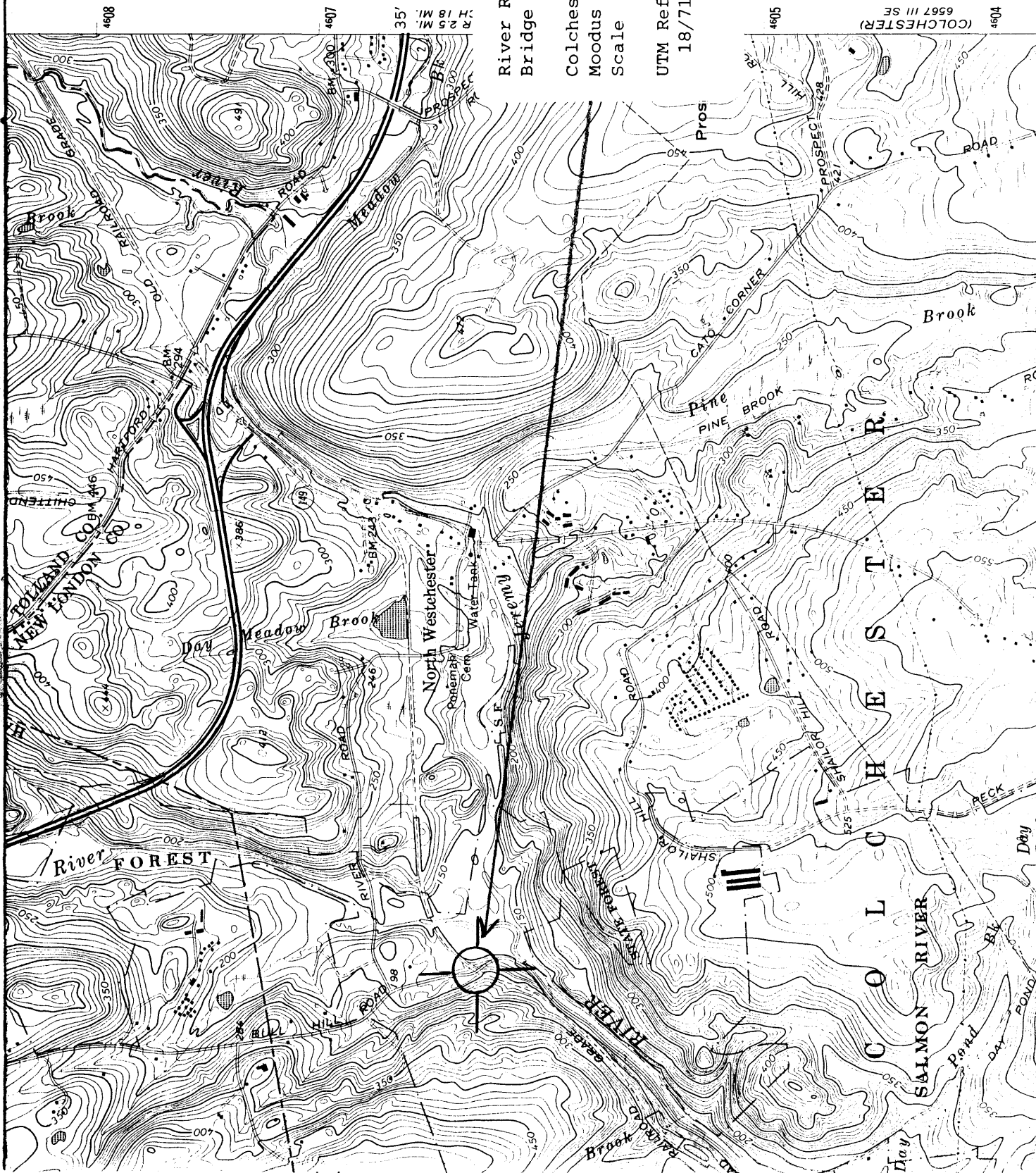
Item number 8

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8. Significance (continued):

wagons. The legislature passed several laws mandating that the railroads operating in Connecticut had to replace grade crossings with bridges, setting the number to be replaced each year in proportion to each railroad's track mileage. This bridge was erected in response to that state-government initiative.

The 1887 stone arch provides an interesting contrast to other structures on the Air Line route, notably the spectacular viaducts noted above. While the viaducts represent the enormous expense and technical ingenuity involved in beginning a railroad, the simple stone arch illustrates the more prosaic process of managing an existing system. The New York, New Haven and Hartford controlled most of the state's rail mileage and did not need to attract business by claims of fast service or technical superiority. In building this bridge the railroad's purpose was limited to compliance with the state's regulatory authority at the lowest cost. Far from being spectacular or inventive, the River Road Bridge utilized traditional technology that dated from Classical antiquity. The railroad apparently economized further by performing the most exacting masonry work (cutting the ring stones) for several bridges at a central location, and then shipping the pre-fabricated material to the grade crossings replaced that year; this method accounts for the numbers that appear on the ring stones of the arch. The River Road Bridge represents the beginnings of the system-wide planning and engineering that would culminate in the 1910s, when the New York, New Haven and Hartford developed standardized technology for its various types of structures, then used the standards to revamp all the routes it controlled. By that time, the steel makers produced rolled steel cheaply enough that masonry construction, with its relatively high labor cost, lost out entirely to metal spans. Thus River Road Bridge represents a transitional phase in the state's railroad development: it falls within the early period of system-wide engineering, but before steel-making improvements and standardized structures caused the railroad to rule out new masonry construction.



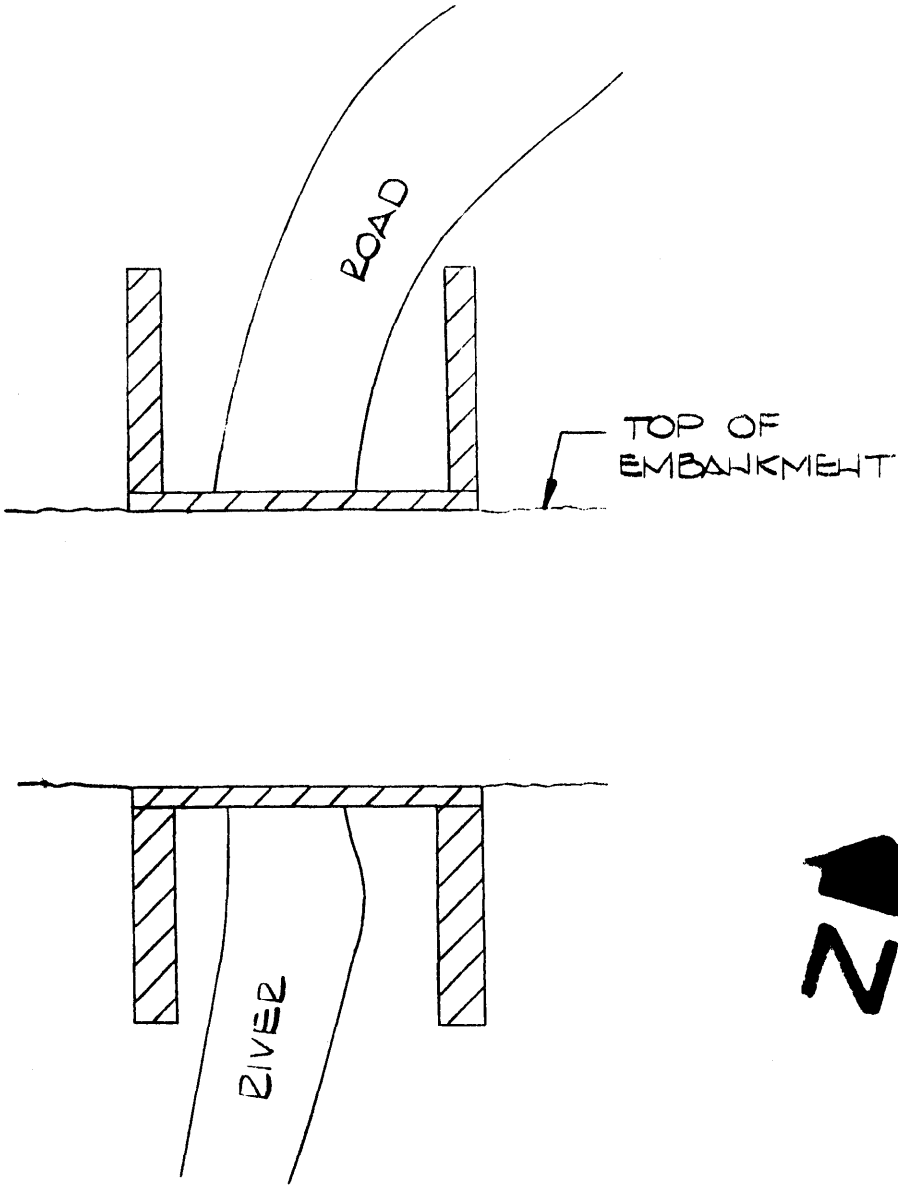
River Road Stone-arch Railroad Bridge

Colchester, Connecticut  
Moodus Quadrangle  
Scale 1:24000

UTM Reference:  
18/714610/4606160

(COLCHESTER)  
6567 III SE  
4605

RIVER ROAD STONE ARCH RAILROAD BRIDGE  
COLCHESTER, CONNECTICUT



PLAN AT STONE ARCH BRIDGE

SCALE: 1" = 20'