

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY - NOMINATION FORM

(Type all entries - complete applicable sections)

STATE: NEW HAMPSHIRE
COUNTY: MERRIMACK
FOR NPS USE ONLY
ENTRY DATE: JUN 11 1975

1. NAME

COMMON: SULPHITE RAILROAD BRIDGE
AND/OR HISTORIC: UPSIDE-DOWN COVERED BRIDGE

2. LOCATION

STREET AND NUMBER: Boston & Maine RR.--Tilton & Franklin Branch
CITY OR TOWN: Franklin
CONGRESSIONAL DISTRICT: SECOND
STATE: New Hampshire
CODE: 33
COUNTY: Merrimack
CODE: 013

3. CLASSIFICATION

CATEGORY (Check One): Building, Structure
OWNERSHIP: Private
STATUS: Unoccupied
ACCESSIBLE TO THE PUBLIC: No
PRESENT USE (Check One or More as Appropriate): Transportation

4. OWNER OF PROPERTY

OWNER'S NAME: Boston & Maine Corporation-- Debtor
STREET AND NUMBER: High Street
CITY OR TOWN: North Billerica
STATE: Massachusetts
CODE: 01362 25

5. LOCATION OF LEGAL DESCRIPTION

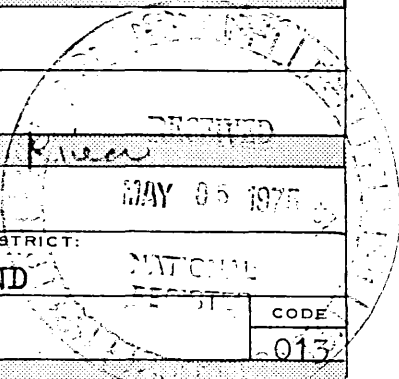
COURTHOUSE, REGISTRY OF DEEDS, ETC.: Merrimack County Registry of Deeds
STREET AND NUMBER: P.O. Box 248 North Main Street
CITY OR TOWN: Concord
STATE: New Hampshire
CODE: 03301 33

6. REPRESENTATION IN EXISTING SURVEYS

TITLE OF SURVEY: New Hampshire's Historic Preservation Plan
DATE OF SURVEY: 1970
DEPOSITORY FOR SURVEY RECORDS: State of New Hampshire/Dept. of Resources and Economic Development
STREET AND NUMBER: P.O. Box 856/25 Capitol Street
CITY OR TOWN: Concord
STATE: New Hampshire
CODE: 03301 33

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7. DESCRIPTION

CONDITION	(Check One)					
	<input type="checkbox"/> Excellent	<input checked="" 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

Sulphite Railroad Bridge crosses the Winnepesaukee River between its north and south banks approximately 7/10ths of a mile east of the former Franklin Falls railroad depot, 3 miles west of Tilton, and 350 yards south of U.S. route 3. Because the river swings slightly to the southwest through the crossing point, the actual alignment of the bridge is from northwest to southeast. The bridge cannot be seen from the road and is accessible only by walking some 300 yards over the railroad track from a parking area located near the Kidder Lumber Company just off U.S. 3 in Franklin. The right-of-way is hemmed in by trees and thick brush which obscure the view and make for difficult walking. Because the tracks run over rather than between the trusses, it is possible to walk across the bridge without realizing that it is in fact a covered bridge. Only by making the steep descent to river level (at some personal risk) can one get a good broadside view.

Sulphite Bridge is a triple-span Pratt truss design. The trusses consist of pairs of crossed metal rods extending between triple upper and lower chords. There are no secondary chords. The small diameter rods, which pass between the large diameter rods, are inclined toward the center of the bridge. Heavy metal clamps fastened to the underside of the lower chords hold the rods taut and firmly in place. The rods located inside the end panels are not crossed but instead parallel one another.

Double-member uprights (8" by 10" timbers) are wedged between the chords at 9' intervals. Transverse bracing is provided by crossed 7" by 8" timbers spaced 6' apart, bolted at their crossing points, the ends notched and wedged against upper and lower chords. Lateral bracing between the chords consists of metal rods which connect the apexes of adjoining crossed timbers. Heavy wooden joists laid across the upper laterals support the roof and roadway overhead.

The bridge is boarded over with 7/8" siding nailed to 2" by 4" 's and hung vertically to below the level of the lower chords.

Floor boards have been laid over the lower laterals at either

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7. DESCRIPTION. end, otherwise the lower deck is unfloored and extremely hazardous to walk upon. The bridge may be entered through doors located at either end. Heavy gauge wire mesh protects the siding immediately above the abutments, but vandals have broken through the siding and entered the east end of the bridge. The interior is covered with graffiti. There is also evidence of a small fire having been set recently directly underneath the bridge. Arson and vandalism are a serious threat.

The wooden roof is protected by metal sheeting and overhangs the bridge ends and sides by 1'. The single-track roadway rests directly upon the bridge top. The ties have been planed to fit the curvature of the roof. <sup>GAUNTLET TRACKS</sup> ~~Iron guard rails~~ spiked between the running rails afford some protection in the event of a derailment.

The spans, each measuring 60', rest upon two center piers built of coursed and mortared granite slabs. Each pier measures 25' by 12' at its base. The abutments are similarly constructed. Massive wooden sills resting upon stone bridge seats support the structure at either end.

Wooden timber and pile trestles support the bridge approaches. The triple-span east trestle approach is 31' long; the double span west trestle is 23' long; between abutments the distance is 180', giving the bridge a total length of 234'. The bridge, which has not been used by rail traffic for a year, is in fair to good condition. Some siding has been replaced; chords, joists, trestle piles, and other critical members show little sign of deterioration. The masonry is also in good condition.

The bridge is numbered 29-07-09 in The World Guide to Covered Bridges, 62 by the New Hampshire Department of Resources and Economic Development, and 248(formerly 218) by the Boston & Maine Railroad.

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(Continuation Sheet, 2

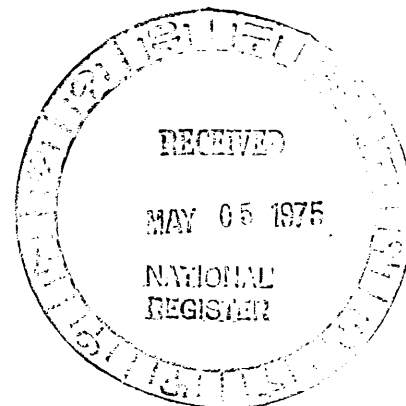
STATE NEW HAMPSHIRE	
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7. DESCRIPTION.

Original Appearance. The bridge inspection records of the New Hampshire Public Utilities Commission indicate that the trestle approaches have been rebuilt several times; otherwise Sulphite Bridge has not much changed in appearance since its construction in 1897.<sup>1</sup>

<sup>1</sup> New Hampshire Public Utilities Commission, "Railroad Bridge Reports". plan #748.



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) 1897-1973

AREAS OF SIGNIFICANCE (Check One or More as Appropriate)

- |   |   |  |  |
|---|---|--|--|
| <input type="checkbox"/> Aboriginal     | <input type="checkbox"/> Education              | <input type="checkbox"/> Political                 | <input type="checkbox"/> Urban Planning  |
| <input type="checkbox"/> Prehistoric    | <input checked="" type="checkbox"/> Engineering | <input type="checkbox"/> Religion/Phi-             | <input type="checkbox"/> Other (Specify) |
| <input type="checkbox"/> Historic       | <input type="checkbox"/> Industry               | losophy  | _____                                    |
| <input type="checkbox"/> Agriculture    | <input type="checkbox"/> Invention              | <input type="checkbox"/> Science                   | _____                                    |
| <input type="checkbox"/> Architecture   | <input type="checkbox"/> Landscape              | <input type="checkbox"/> Sculpture                 | _____                                    |
| <input type="checkbox"/> Art            | Architecture                                    | <input type="checkbox"/> Social/Human-             | _____                                    |
| <input type="checkbox"/> Commerce       | <input type="checkbox"/> Literature             | itarian  | _____                                    |
| <input type="checkbox"/> Communications | <input type="checkbox"/> Military               | <input type="checkbox"/> Theater                   | _____                                    |
| <input type="checkbox"/> Conservation   | <input type="checkbox"/> Music                  | <input checked="" type="checkbox"/> Transportation | _____                                    |

STATEMENT OF SIGNIFICANCE

Engineering: Sulphite Bridge appears to be the last surviving <sup>✓</sup> railroad deck-type covered bridge in the United States. The present structure, built in 1896 or 1897 by the Bridges and Building Department of the Boston & Maine Railroad, replaces a framed trestle bridge erected here in 1891 or 1892 by the Franklin & Tilton Railroad.<sup>1</sup>

Transportation: Chartered in 1889, largely for political rather than purely commercial purposes, and financed jointly by the Boston & Maine and Concord & Montreal railroads, the Franklin & Tilton Railroad finished construction of its five miles of line in June 1892. Substantially built at a cost of \$245,708.05, the new road connected the C&M's main line at Tilton with the B&M just west of a covered bridge crossing of the Merrimack River in Franklin. It opened with such poor prospects of earning profits, that the State Railroad Commissioners were of the frank opinion that it was of no use to anyone: "We know of no other case in which so much money has been spent for so little purpose on a railroad project."<sup>2</sup> Within a few years, however, the International Paper Company located three giant pulp and paper mills not far from Sulphite Bridge, which took its name from the great quantities <sup>of sulphur</sup> which were transported over the F&T line for consumption by the local paper industry.<sup>3</sup>

In October 1895, the Franklin & Tilton was leased for 99 years (at an annual rental of \$1.00) to the C&M, which almost immediately reassigned the lease to the B&M. The paper mills closed during the 1920's. The bridge across the Merrimack was

Continued on Continuation Sheet 3.

SEE INSTRUCTIONS

9. MAJOR BIBLIOGRAPHICAL REFERENCES

The Franklin, N.H. Journal-Transcript, December 22, 1965, September 22, 1966.  
 New Hampshire Public Utilities Commission, "Railroad Bridge Records", plan # 748.  
 New Hampshire Railroad Commission, Annual Reports, 1892, 1896, 1897.  
 Patten, Natalie. "Covered Bridges of New Hampshire." scrapbook in 3 volumes, New Hampshire Historical Society Library.

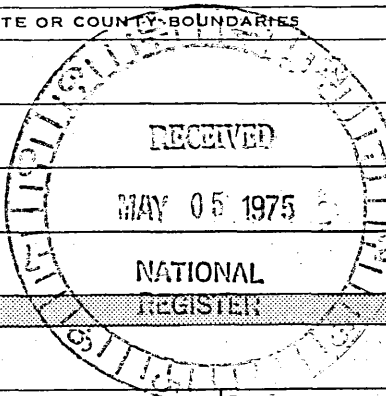
10. GEOGRAPHICAL DATA

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	° ' "	° ' "		43 ° 26 ' 42 "	71 ° 37 ' 44 "	
NE	° ' "	° ' "				
SE	° ' "	° ' "				
SW	° ' "	° ' "				

APPROXIMATE ACREAGE OF NOMINATED PROPERTY:  $\frac{1}{4}$  acre

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

STATE:	CODE	COUNTY	CODE



SEE INSTRUCTIONS

11. FORM PREPARED BY

NAME AND TITLE:  
Rexford B. Sherman, Ph.D.  
 ORGANIZATION \_\_\_\_\_ DATE: 1 Sept. 1974

STREET AND NUMBER:  
Hope Farm

CITY OR TOWN:  
Bradford STATE: New Hampshire CODE: 33

12. STATE LIAISON OFFICER CERTIFICATION

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: [Signature]  
 Commissioner DRED  
 Title: State Historic Preservation Officer

Date: April 30, 1975

NATIONAL REGISTER VERIFICATION

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

[Signature]  
 Director, Office of Archeology and Historic Preservation

Date: 6/11/75

ATTEST:

[Signature]  
 Keeper of The National Register

Date: June 10 1975

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(Continuation Sheet) 3

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COUNTY	MERRIMACK	
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(Number all entries)

8. SIGNIFICANCE. Transportation: destroyed by the floods of 1936 and never replaced. Service over the line was suspended in 1973. The B&M has petitioned for permission to abandon it entirely.

1  
New Hampshire Railroad Commission, Annual Report, 1897, 136; New Hampshire Public Utilities Commission, "Railroad Bridge Reports," plan #748.

2  
New Hampshire Railroad Commission, Annual Report, 1890, 7; New Hampshire Railroad Commission, 1891, 6; New Hampshire Railroad Commission, Annual Report, 1892, 4; New Hampshire Railroad Commission, Annual Report, 1893, 251-255; Laws of the State of New Hampshire, Passed January Session, 1889, ch. 206.

3  
Franklin(NH) City Directory, 1902, 165 & map; The Franklin, NH) Journal-Transcript, December 22, 1965, September 22, 1966.

4  
New Hampshire Railroad Commission, Annual Report, 1896, 62; New Hampshire Public Utilities Commission, op. cit., plan #244.

