Massachusetts Cultural Resource Information System

Scanned Record Cover Page

Inventory No:	NFL.926
Historic Name:	Central Vermont Railroad Bridge
Common Name:	
Address:	
City/Town:	Northfield
Village/Neighborhood:	West Northfield
Local No:	
Year Constructed:	R 1904
Architect(s):	
Architectural Style(s):	
Use(s):	Other Transportation
Significance:	
Area(s):	
Designation(s):	

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Commonwealth of Massachusetts
Massachusetts Historical Commission
220 Morrissey Boulevard, Boston, Massachusetts 02125
www.sec.state.ma.us/mhc

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Friday, March 07, 2014 at 12:43 AM

NFL.926

MASSACHUSETTS HISTORIC BRIDGE INVENTORY

Municipality: Northfield District: 2

Street name/Rt. #: Central Vermont RR

Over
Street name/Rt. #: Caldwell Rd., Connecticut River

Bridge key #: RRO 236 003 000 Photo ##s: 46: 19A-20A, 22A-24A

Bridge plan #: N-22-26

Common/historic name: CV RR Bridge No. 95

Current owner:

UTM coordinates: AASHTO rating: 5555 (N/A)

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National Register status (insert date)

Entered: Potential:

Eligible: Non-eligible:

Field rating:

3 (2) 1

****

Date built (source): 1904, 1936 (plates) (CV Railway Annual Report, 1905)

Date(s) rebuilt (source):

Builder (source): 1904 - Amer. Bridge Co. NY 1936 - Amer. Bridge Co - USA (plates)

Designer (source):

****

Structural type/materials: 309 303

1 span, pin-connected, steel, 8-panel Pratt deck truss. Adjustable counters in 4 central panels, die-forged eye-bar lower chords in 6 central panels, latticed struts at lower chord level in end panels. die-forged eyebar diagonals, laced channel verticals.

3 spans, riveted steel single-intersection with verticals Warren deck trusses (1936)

2 spans, built-up steel deck plate girders

large-block granite ashlar piers and abutments, some added to or replaced by concrete.

Overall length: ca 800'± Deck width/layout: single-track RR

Skew: -

Main unit, # spans: 4 lengths: ca. 165'±

Approaches, # spans: 2 lengths: ca. 70±

Plaque: 4 seen location: 3, 1936, on top chords Warren trusses; 1, 1904, E end girder, N end approach span

Alterations, unusual features, comments:

Northern plate girder approach span is carried at its southern end by the end posts of the Pratt deck truss -- it does not have a separate bearing on the stone pier.

* Date of the Pratt deck truss is not absolutely certain; there being no builder's plate on the truss itself. It is presumed to be of the same 1904 date as the plate girder approach span which is riveted to its northern end posts.

*Correction; the Central Vermont Railway's Annual Report for the year ending June 30, 1905 states that a timber bridge on this crossing had been replaced by a new steel bridge in the preceding year; the steel Pratt deck truss can thus be firmly dated 1904.

NFL 926

Visual quality (bridge and setting): High X Average ___ Low ___

Site integrity: Retained X Violated ___

Describe: Rural, agricultural area, with cornfields laid out on stepped terraces along the Connecticut. Banks of the river are heavily wooded. The dramatic outline of the Schell Bridge (N-22-2) is visible upstream.

History of bridge and site:

Presumption would be that the present southern spans of this bridge were built in the aftermath of the March, 1936 flood on the Connecticut.

The 1904 spans of the bridge (at the northern end) were part of a complete rebuilding of what had been a timber bridge. It seems likely that the granite ashlar portions of the existing piers and abutments pre-date this 1904 rebuilding.

Sources: Sixth Annual Report of the Directors of the Central Vermont Railway Co., for the Fiscal Year ending June 30, 1905, p. 11.

B.H. ✓
Plans. No

Old B.H. ✓

****

Summary statement of significance:

The (presumed) date of 1904 for the Pratt deck truss span of this bridge would make this the 2nd oldest of the 5 known Pratt deck truss bridges in the MDPW data base.

The bridge as a whole is a mongrel structure of several ages and structural types, and takes most of its present character from a major reconstruction in 1936.

Statement prepared by: S.J. Roper Date: 8/16/89

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Field survey by: S.J. Roper, MDPW Historic Bridge Specialist Date: 9/13/85

NFL926

MDPW RECOMMENDATION - NATIONAL REGISTER ELIGIBILITY

	Municipality	Street on	No.
Bridge:	Northfield	CV RR/Caldwell Rd., Connecticut River	N-22-26

Historic evaluation

Significant because:

1) Unusual or unique type Pratt deck truss ✓
   or rare survivor of common type ___
2) Early example of type ___
3) Design - Valuable contribution to bridge technology ___
4) Retains integrity ___
5) Builder known and important ___
6) Bridge historically important to area ___

Not significant because:

1) Common type ___
2) Post-1931 large parts of bridge are 1936 ✓
3) Design - no contribution to bridge technology ✓
4) Integrity lost because of: a) alterations ✓
   b) disintegration ___
5) Builder unimportant or not known American Bridge Co NY ✓
6) No known significance in area ✓

☐ Potentially eligible
☐ Not eligible individually, but located
☒ Not eligible
☐ Conditionally not eligible; review when 50 years old

Comments:
A mongrel structure which takes most of its character from a major reconstruction of its southern spans in 1936.

16 August 1989 S.J. Roper, MDPW Historic Bridge Specialist

NFL.926

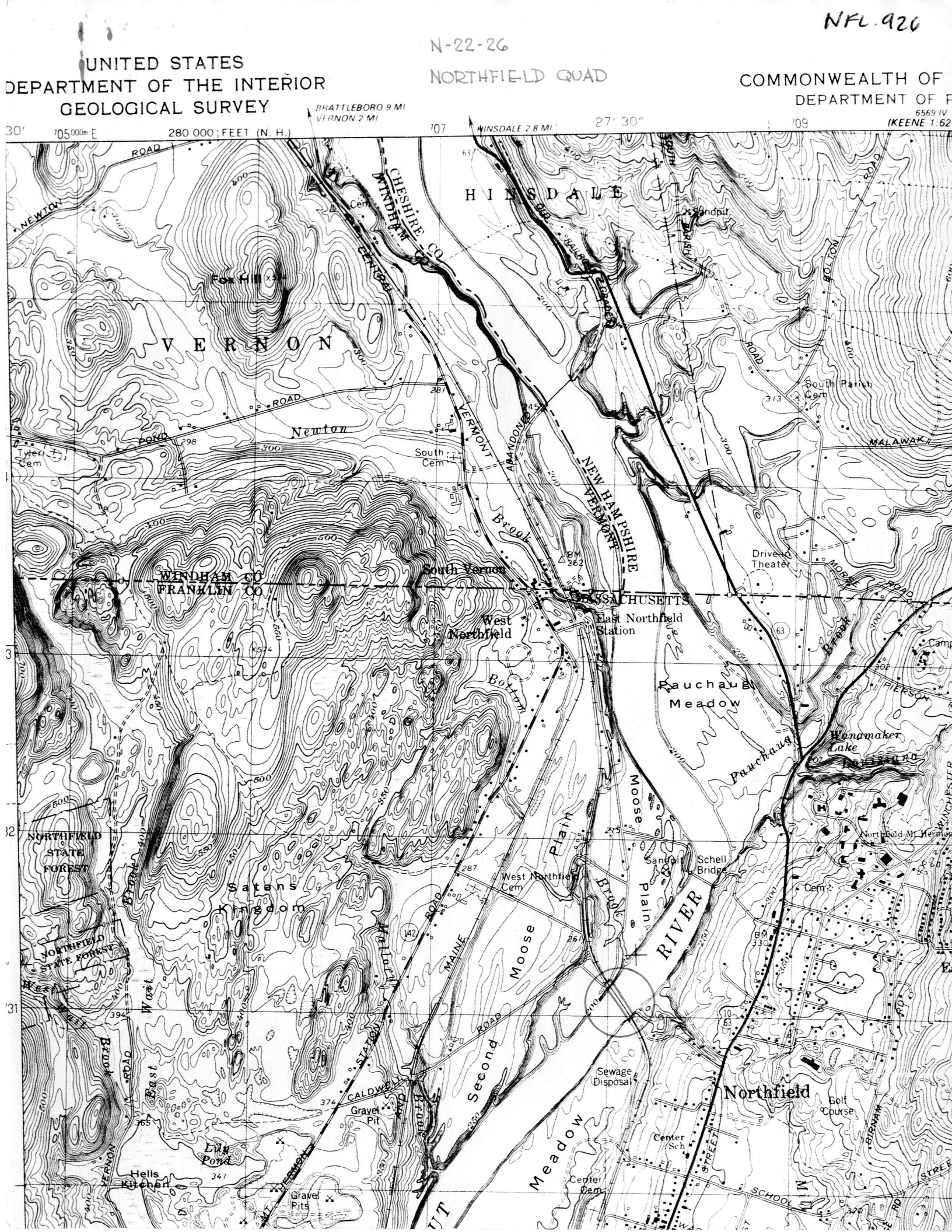
N-22-26

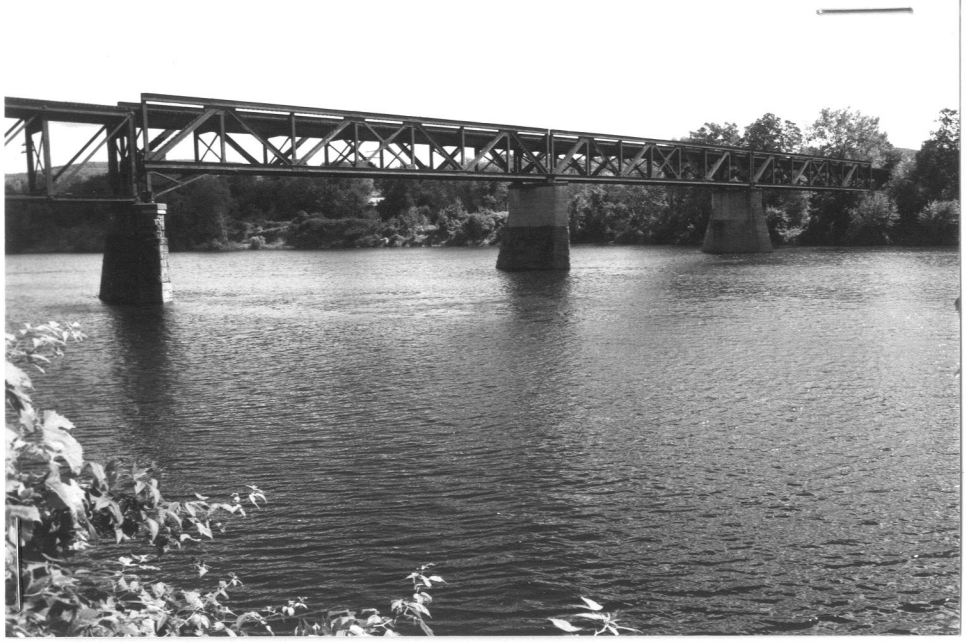
NORTHFIELD QUAD

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

COMMONWEALTH OF
DEPARTMENT OF

6569 IV
(KEENE 1:62



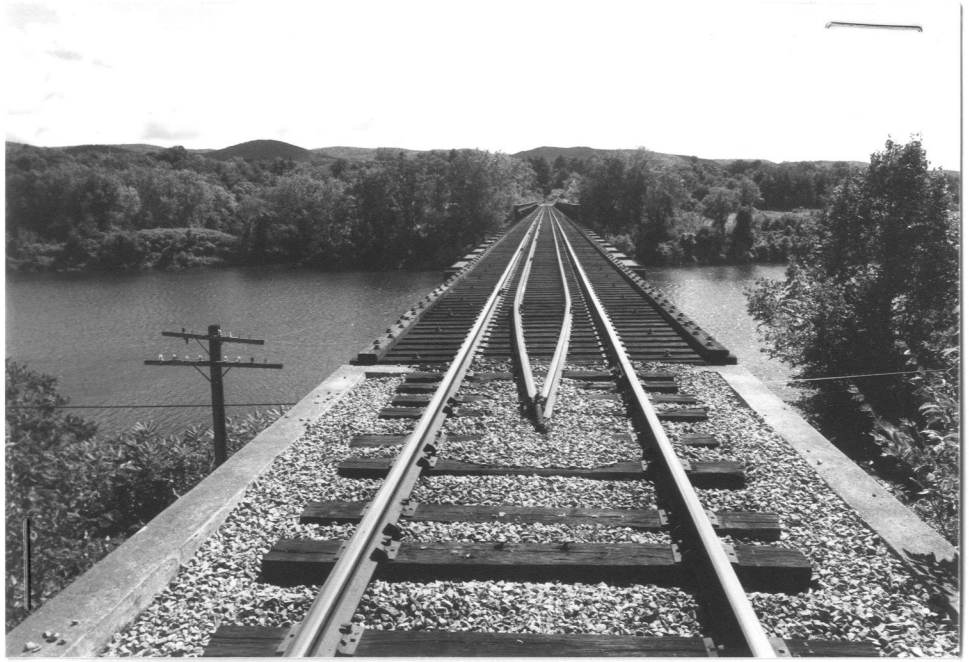


RIVER SPANS FROM W

NW ernmost SPAN (OVER CALDWELL RD), FROM SW

NW ABUT. FROM SE.

ALL PHOTOS: 9-13-85



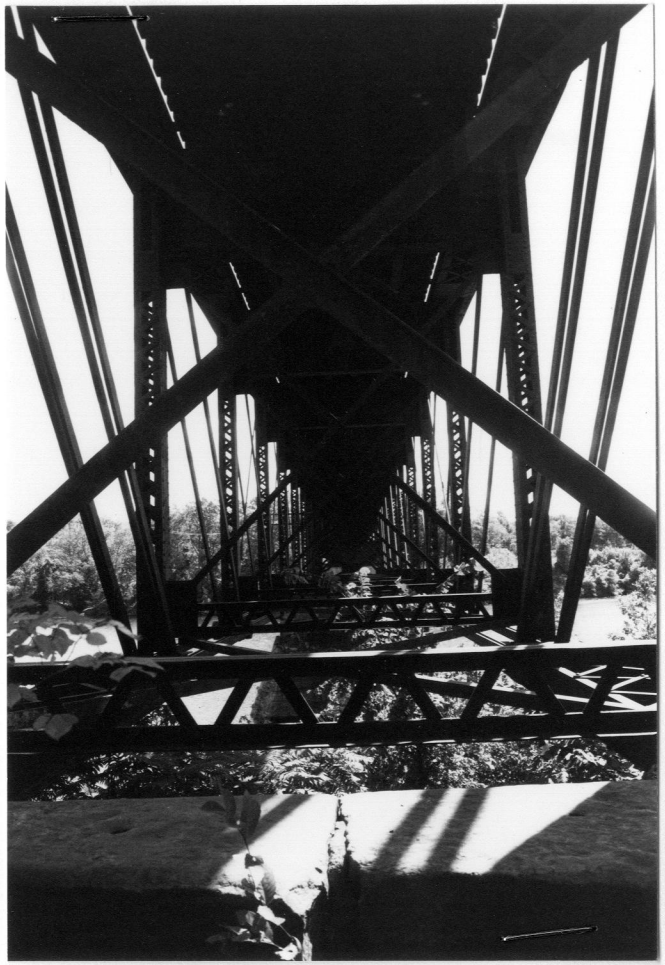
FROM NW

FROM SE

ON NEEM PLATE GIRDER, IN NWernmost SPAN, OVER CALDWELL RD.

ON TOP CHORD OF SOUTHEASTERNMOST DECK TRUSS

ALL PHOTOS: 9-13-85



LOOKING THROUGH RIVER SPAN TRUSSES, FROM NW

(9-13-85)

NFL.926

TO: BETSY FRIEDBERG RETURN TO REVIEWER BY _____ (DATE)

FROM: WM. SMITH

DATE: 12/10/90

TOWN: North Field

PROPERTY: N-22-26 B & M Rail Road over Caldwell Rd / connecticut River
(NAME AND ADDRESS)

1. Does this property meet the criteria for NR eligibility?

☐ YES

☒ NO

A. Criteria
   a. events
   b. lives
   c. characteristics
   d. information

B. Local _____ State _____ National _____

2. Statement of Significance: OR Why not eligible?

1904 - 1936 6 span pin connected steel pratt deck trusses

Major Reconstruction in 1936 changes the bridge to a hybrid structure - only one span is a pratt the other two are 1936 warren deck trusses.

Concur. Alterations have compromised integrity. aj.

☐ DOE LETTER WRITTEN FILED IN ER FILE _____

_____ (DATE)

NFL.926

Boston/Quincy	B-16-368/Q-1-50	Long Island Bridge over Quincy Bay
Conway	C-20-7	Hickory Ridge Road over South River
Erving/Montague	E-10-5/M-28-5	Paper Mill Road over Millers River
Montague	M-28-20	C.V.R.R. over North Leverett Road/ Sawmill River
Northfield	N-22-26	B & M Railroad over Caldwell Road/ Connecticut River
Westfield	W-25-4	United States Route 20 over Westfield River

If you have any questions, please feel free to contact William Smith of this office.

Sincerely,

Judith B. McDonough

Judith B. McDonough
Executive Director
State Historic Preservation Officer
Massachusetts Historical Commission

JBM/WS/kab

cc: Frank Bracaglia, MDPW

The following bridge does not appear to meet National Register criteria at present. However, as this bridge reaches 50 years of age, its National Register eligibility should be reassessed. NFL.926

Boston/Chelsea	B-16-17/C-9-6	United States Route 1 over Mystic River

1950 Three span cantilever Warren type web through truss. Double deck bridge is a Boston landmark.

Montgomery/Russell	M-30-8/R-13-18	I90 over U.S. Route 20, Westfield River

1957 Eight span, two continuous span riveted steel Pratt deck truss. A landmark bridge and the only Pratt deck truss to be designed with continuous deck truss spans.

The following bridges did not appear to meet National Register criteria for individual listing. However, the bridges are within, or adjacent to an historic district or potentially eligible historic district, and plans for replacement should take into consideration potential impact to adjacent properties.

Fitchburg	F-4-12	State Rte. 31/Rollstone Street over North Nashua River, Broad Street

This bridge is located adjacent to lower Rollstone Bridge (1870 Parker pony truss).

Greenfield/Montague	G-12-20/M-28-1	Montague City Road over Connecticut River

This bridge stands between East Greenfield and Montague city. Though inventory is incomplete, significant historic resources are in both areas. There is a group of turn of the century cottages on Montague City Road that may be eligible for listing in the National Register.

Lawrence	L-4-24	Salem Street over B & M Railroad

This bridge is adjacent to mill building and Victorian Gothic church; however, the level of information on this area is not well documented at this time.

The MHC concurs with the preliminary findings of MDPW that the following bridges do not appear to meet criteria for listing in the National Register of Historic Places.

Amesbury/Newburyport	A-7-16/N-11-17	I-95 over Merrimack River

Lowell L-15-19 Bridge Street over Merrimack River NRL.926

1937 Three span cantilever Warren type through truss. This visual landmark is a rare example of a major structural type in Massachusetts. Adjacent to the Locks and Canals Historic District (NR, NHL).

Lowell L-15-21 Textile Avenue over Northern Canal, Merrimack River

1896 Three span pinned steel Pratt deck truss. Oldest example of an uncommon highway bridge type in Massachusetts. It spans over the Northern Canal and Great River Wall of the Locks and Canals National Register Historic District.

Montague M-28-18 Bridge Street over B & M Railroad/ C.V. Railroad

1897 Latticed type through truss designed by Edge Moor Bridge Company of Delaware. It is the only known example of this unique bridge type..

Northfield N-22-2 East Northfield Road over Connecticut River

1901-1903 Three span steel Pennsylvania through truss. Unique variation of an uncommon bridge type. Gracefully designed bridge in an outstanding natural setting. The bridge is designed to function as a continuous truss under live loads and a simple truss with cantilevered ends under dead load.

Stockbridge S-26-3 Butler Road over Housatonic River

1881 Pin connected wrought iron half through Pratt pony truss with Borneman type stone pedestals rising above abutments. A rare and unique bridge design by a world famous bridge designer - George Morison. Bridge has national significance.

Waltham W-4-9 B & M Railroad over State Rte. 60, Linden Street

1894 Steel lattice through truss with quad web system. Intact example of an uncommon bridge type severely skewed. Reviewed and entered in the National Register of Historic Places 9/28/89.

Windsor W-41-11 Windsor Bush Road over Phelps Brook

1893 One span iron and steel Ball Queen post. One of only two surviving examples of Charles Ball unique pipe truss bridge.

Chicopee/Holyoke	C-13-12/H-21-30	Cabot Street (Rte. 116) over Conrail

NFL.926

1891 Six span steel Pennsylvania through truss. Oldest of the five known Pennsylvania through trusses and is one of the earliest known steel bridges in Massachusetts. Designed by Edward Shaw and built by the R.F. Hawkins iron works.

Dalton	D-1-11	Holiday Road over Wahconah Brook

1894 One span Ball Queenpost pony truss. One of only two surviving examples of Charles Ball unique patented pipe truss bridge. Previously reviewed by the Massachusetts Historical Commission and determined eligible 10/6/81.

Erving/Montague	E-10-3/M-28-0	Central Vermont Railroad over Millers River, Newton Street

1905 Five span pin-connected Pratt deck truss. Impressive example of a pin-connected long span deck truss which was favored by American railroads in the 19th century. Bridge is eligible individually and as a contributing element to a potential National Register District.

Framingham	F-7-5	Main Street over Sudbury River

1878 Rare wrought iron bowstring arch pony truss. It is the only known surviving bowstring metal arch in the Massachusetts Department of Public Works database. It is one of six surviving metal truss bridges in the MDPW database built prior to 1880.

Holyoke/South Hadley	H-21-1/S-18-4	State 116/Bridge Street over Connecticut River

1889 Ten spans wrought iron lattice through truss. A landmark bridge, which is the oldest metal lattice through truss in Massachusetts. It is the only known truss bridge to have ten spans. Bridge was determined to be eligible for the National Register 1/9/79.

Lancaster	L-2-4	Bolton Road over Nashua River

1870 Pinned and bolted wrought iron and cast iron Post's type pony truss. Very early and unique metal truss bridge with national significance entered in the National Register of Historic Places 9/10/79.

Lancaster	L-2-8	Ponakin Road over Nashua River

1871 Post truss. This bridge is the only known surviving Post truss in the United States. This nationally significant bridge is located near a potential historic district.

Lowell	L-15-8	Hale Street over B & M Railroad

1892 One span pin-connected wrought iron Pennsylvania through truss. Early example of an uncommon bridge type in Massachusetts. Only one of the five Pennsylvania trusses to be pin-connected, virtually unaltered. This bridge is also located near the South Common National Register Historic District.

NFL.926

March 6, 1991

Mr. Anthony J. Fusco
Division Administrator
Federal Highway Administration
Transportation Systems Center
55 Broadway - 10th Floor
Cambridge, MA 02142

ATTN: Mr. H. Pearlman

RE: Massachusetts Bridges, National Register Eligibility

Dear Mr. Fusco:

The Massachusetts Historical Commission has reviewed the historic bridge inventory forms prepared by the Massachusetts Department of Public Works. The Massachusetts Historical Commission concurs with the preliminary findings of Massachusetts Department of Public Works that the following bridges meet criteria for listing in the National Register of Historic Places.

Bourne (Bourne Bridge) B-17-4 State 28 over Cape Cod Canal

1934 Three span continuous truss with deck/through riveted steel truss, Warren type truss web. Central span is arched, and highway deck is suspended from its lower chords. Two single intersection Warren deck truss approach spans at each end of the main structure. A landmark, award winning bridge, known internationally for its design and setting.

Bourne (Sagamore Bridge) B-17-5 U.S. 6 over Cape Cod Canal

1935 Three span continuous truss. It is virtually identical to the Bourne Bridge, without the approach spans. The bridge won Honorable Mention in 1935 for its graceful design. Both bridges are elements in a much larger engineering project of significance in its own right, the Cape Cod Canal, a potential National Register Historic District.

Massachusetts Historical Commission, Judith B. McDonough, *Executive Director, State Historic Preservation Officer*
80 Boylston Street, Boston, Massachusetts 02116 (617) 727-8470

Office of the Secretary of State, Michael J. Connolly, *Secretary*