NPS Form 10-900
(Rev. 10-90)

OMB No. 1024-0018

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES REGISTRATION FORM

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in *How to Complete the National Register of Historic Places Registration Form* (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name Meadow Bridge

other names/site number Depot Bridge

2. Location

street & number See continuation sheet N/A ☐ not for publication

city or town N/A ☐ vicinity

state ______ code ____ county ______ code ____ zip code ______

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this ■ nomination ☐ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property ■ meets ☐ does not meet the National Register Criteria. I recommend that this property be considered significant ■ nationally ■ statewide ■ locally. (☐ See continuation sheet for additional comments.)

[signature] 10/27/03
Signature of certifying official Date

NEW HAMPSHIRE
State or Federal agency and bureau

In my opinion, the property ☐ meets ☐ does not meet the National Register criteria. (☐ See continuation sheet for additional comments.)

Signature of commenting or other official Date

State or Federal agency and bureau

4. National Park Service Certification

I, hereby certify that this property is:
☑ entered in the National Register
☐ See continuation sheet.
☐ determined eligible for the National Register
☐ See continuation sheet.
☐ determined not eligible for the National Register
☐ removed from the National Register
☐ other (explain):

Signature of Keeper: Edson H. Beall
Date of Action: 12/10/03

5. Classification

Ownership of Property (Check as many boxes as apply)

- ☐ private
- ☐ public-local
- X public-State
- ☐ public-Federal

Category of Property (Check only one box)

- ☐ building(s)
- ☐ district
- ☐ site
- X structure
- ☐ object

Number of Resources within Property (Do not include previously listed resources in the count)

Contributing	Noncontributing	
0	0	buildings
0	0	sites
1	0	structures
0	0	objects
1	0	Total

Number of contributing resources previously listed in the National Register 0

Name of related multiple property listing (Enter "N/A" if property is not part of a multiple property listing.)
N/A

6. Function or Use

Historic Functions (Enter categories from instructions)

Cat: Sub:
Transportation: Road-Related (Vehicular)

Current Functions (Enter categories from instructions)

Cat: Sub:
Transportation: Road-Related (Vehicular)

7. Description

Architectural Classification (Enter categories from instructions)

Other: Multiple Steel Truss

Materials (Enter categories from instructions)

foundation Multiple Steel Cylinder Piers
roof N/A
walls N/A
other Steel: Structural

Narrative Description (Describe the historic and current condition of the property on one or more continuation sheets.)

8. Statement of Significance

Applicable National Register Criteria (Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing)

X **A** Property is associated with events that have made a significant contribution to the broad patterns of our history.

☐ **B** Property is associated with the lives of persons significant in our past.

X **C** Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents significant and distinguishable entity whose components lack individual distinction.

☐ **D** Property has yielded, or is likely to yield information important in prehistory history.

Criteria Considerations
(Mark "X" in all the boxes that apply.)

☐ **A** owned by a religious institution or used for religious purposes.

☐ **B** removed from its original location.

☐ **C** a birthplace or a grave.

☐ **D** a cemetery.

☐ **E** a reconstructed building, object, or structure.

☐ **F** a commemorative property.

☐ **G** less than 50 years of age or achieved significance within the past 50 years.

Areas of Significance
(Enter categories from instructions)
Transportation
Engineering

Period of Significance
A.: 1897-1953
C.: 1897

Significant Dates
1897

Significant Person
(Complete if Criterion B is marked above)
N/A

Cultural Affiliation
N/A

Architect/Builder Groton Bridge and Manufacturing Company, Groton, N. Y.

Narrative Statement of Significance (Explain the significance of the property on one or more continuation sheets.)

9. Major Bibliographical References

Bibliography(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous documentation on file (NPS)

☐ preliminary determination of individual listing (36 CFR 67)has been requested.
☐ previously listed in the National Register
☐ previously determined eligible by the National Register
☐ designated a National Historic Landmark
☐ recorded by Historic American Buildings Survey # ________
☐ recorded by Historic American Engineering Record # ________

Primary Location of Additional Data

X State Historic Preservation Office
X Other State agency (NHDOT)
☐ Federal agency
☐ Local government
☐ University
☐ Other
Name of repository: ________________

10. Geographical Data

Acreage of Property Less than one acre

UTM References (Place additional UTM references on a continuation sheet)

	Zone	Easting	Northing		Zone	Easting	Northing
1	19	0335660	4918325	3			
2				4			

☐ See continuation sheet.

Verbal Boundary Description
(Describe the boundaries of the property on a continuation sheet.)

Boundary Justification (Explain why the boundaries were selected on a continuation sheet.)

11. Form Prepared By

name/title James L. Garvin, Architectural Historian

organization New Hampshire Division of Historical Resources date August 13, 2003

street & number 19 Pillsbury Street telephone (603) 271-3483

city or town Concord state NH zip code 03302-2043

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps
A **USGS map** (7.5 or 15 minute series) indicating the property's location.
A **sketch map** for historic districts and properties having large acreage or numerous resources.

Photographs
Representative **black and white photographs** of the property.

Additional items
(Check with the SHPO or FPO for any additional items)

Property Owner

(Complete this item at the request of the SHPO or FPO.)

name New Hampshire Department of Transportation

street & number 1 Hazen Drive telephone (603) 271-3734

city or town Concord state NH zip code 03302-0483

2. Location

street & number Meadow Bridge (New Hampshire Bridge No. 122/110) formerly carried a spur of North Road in Shelburne across the Androscoggin River, connecting the main thoroughfare of North Road, running east and west, with the vicinity of a former railroad depot and Shelburne Village, standing on a parallel road, Village Road, south of the river. The bridge was bypassed by a new span in 1984. The new bridge crosses the river parallel to Meadow Bridge a short distance downstream (easterly) of the older bridge. N/A ☐ not for publication

city or town Shelburne N/A ☐ vicinity

state New Hampshire code NH county Coos code 007 zip code 03581

7. Description

The Meadow or Depot Bridge (New Hampshire Bridge Number 122/110) is a multiple-span, pin-connected truss bridge that spans the Androscoggin River at a site that was used as a fording place until the bridge was completed in 1897.[1] The river in this location is wide and shallow during dry seasons. The relatively unconstrained stream width, passing through level meadows that gave the span one of its local names, required that the bridge achieve a total span of over five hundred feet. To attain this length without excessively high or expensive trusses, the bridge was built with three identical high or "through" trusses, supplemented by a single low or "pony" truss at the south end and by a short steel stringer deck span at the north end. While the ends of the structure rest on stone abutments, the inner bridge seats are all supported by a series of cylindrical steel piers, filled with concrete and anchored by timber piles that were driven into the bed of the river or the alluvial soils of the adjacent meadow. Due to the slow accumulation of silt and gravel along the southern shore of the river, the active channel width has been reduced from approximately 400 feet to 250 feet, leaving two of these piers on dry land at times of normal flow.[2]

The bridge stands in a mountainous area of singular natural beauty, affording views of the Mahoosuc Mountain Range to the north and east, and of the Carter-Moriah Range of the White Mountain National Forest to the south. The natural attractiveness of the area, coupled with convenient railroad connections, had made Shelburne the site of summer homes and boarding houses by the late 1800s. Meadow Bridge was built as an essential link between the village and railroad connections of Shelburne, located south of the Androscoggin River, and a number of farms and summer homes that had previously been difficult of access on the northern side of the stream.

A short distance downstream from Meadow Bridge stands New Hampshire Bridge No. 122/109, which was built to bypass the older bridge in 1984. The new bridge is a steel deck girder span with multiple welded continuous steel girders of variable cross section. Its four spans of weathering steel support a concrete floor and rest on concrete abutments and piers.

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[1] Margaret Merrell, ed., *Shelburne, New Hampshire: Its First Hundred Years* (Berlin, N.H.: Smith & Town Printers, 1969), pp. 43-45.
[2] U. S. Army Corps of Engineers, New England Division, *Water Resources Development, New Hampshire: The Work of the U. S. Army Corps of Engineers in New Hampshire*, NEDEP-360-1-35 (November 1995), pp. 60-62.

Superstructure: The superstructure of Meadow Bridge consists of five independent simple spans, supported on stone abutments at the shores of the river and on cylindrical steel piers within the original bed of the river. These five spans include one short deck-girder approach span at the north end, one pin-connected low or "pony" Pratt truss approach span at the south end, and three identical high or "through" pin-connected Pratt truss main spans over the river.[3] The bridge is 18'-3¼" wide and 504'-2" long overall, and is oriented northeast-southwest. All members of the bridge are joined with pinned, riveted, or threaded connections. Although the metal has not been tested for composition, all members are assumed to be steel except for the diagonals and hip verticals, which are wrought iron with forge-welded loop eyes at their ends.

High Trusses: The three high Pratt trusses are identical, each having a total of eight panels in the bottom chords. Each truss panel measures 16'-8" long by 20'-0" tall between pin centers. Each high truss has a total length of 133'-4" between the centers of the bearing pins.

The top chords and inclined end posts are built-up riveted box sections. The sides of these sections are two 7" by 2" channels joined back-to-back, 9½" apart, with 14¼" by ¼" continuous top plates and 14¼" by 4" by ¼" bottom tie plates spaced 27 inches on centers. Bottom chords are die-forged steel eyebars in pairs, varying in cross-section according to the tensile stresses they resist. In panels 1, 2, 7, and 8, the eyebars have a cross-sectional dimension of 2" by $^7/_8$". In panels 3 and 6, the bars measure 3" by 1". In panels 4 and 5, they measure 4" by 1". Upper pins are 1¼" in diameter; lower pins are 1$^7/_8$" and 2½" in diameter. The movable ends of the trusses rest on roller nest bearings, several of which have completely lost their rollers.

The posts or vertical members of the high trusses resist compressive stresses. They are built-up box sections in which the sides are composed of two channels joined back-to-back, 9¼" apart, with single lacing bars along their lengths and with 6" by ¼" tie plates at top and bottom ends. The posts are of two sizes. The first post at each end of each truss consists of 6" by 1$^7/_8$" channels with 1½" by ¼" lacing bars. The remaining interior posts consist of 5" by 1¾" channels connected by 1¼" by ¼" lacing bars. Hip verticals are believed to be composed of wrought iron rather than steel and consist of paired forge-welded eyebars with rectangular cross-sections measuring 1¼" by ¾".

[3] The following description of Meadow Bridge is an edited excerpt from Richard M. Casella, "New Hampshire Historic Bridge Documentation, Meadow Bridge (NH Bridge No. 122/110)" (Needham, Mass.: Louis Berger Group, Inc., January 2003), compiled for the New Hampshire Department of Transportation with copies on file at that department and at the New Hampshire Division of Historical Resources (the State Historic Preservation Office).

The diagonal panel members act in tension and are forge-welded wrought iron eyebars. The main diagonals are paired flat bars measuring 2½" by ¾" in panels 2 and 7. In panels 3 and 6, the main diagonals measure 1½" by 1". In panels 4 and 5, the main diagonals measure 1" by ¾".

The adjustable counter-braces are round bars (rods) with upset ends, threaded to receive sleeve nuts. They consist of a single $^{5}/_{8}$" diameter rod in panels 3 and 6, and a single ¾" diameter rod in panels 4 and 5.

Portal bracing consists of a lattice-bar-girder strut constructed with T-section flanges and a lattice-bar web. The strut flanges consist of 2" by 11½" by $^{3}/_{16}$" angles, back-to-back. Lattice bars are double intersecting, and measure 1¼" by ¼". Each strut has a 45-degree flare at each end to form integral knee braces that increase the lengths of the connections with the end posts, thereby enhancing the rigidity of the intersections. Decorative cast iron cresting and builder's plaques are mounted atop the struts of the end portals of the two outermost high trusses. These elaborately stylized cast iron plaques are flanged with curved ornaments that suggest the leaves of anthemia. Both sides of each plaque bear raised lettering, the front and back reading, respectively, as follows:

97
C. C. HEBARD SHELBURNE
ELERY WHEELER
JAMES SIMPSON
B. C. BURBANK
C. E. PHILBROOK

97
GROTON BRIDGE & MFG. CO.
BUILDERS
GROTON, N. Y.

The upper lateral struts are built-up I-sections measuring 7½" deep overall. They consist of T-section flanges of 2" by 1½" by $^{3}/_{16}$" angles, back-to-back, with webs of double-intersecting 1¼" by ¼" lattice bars. Upper lateral bracing is composed of round bars (rods) with upset ends, threaded and attached to the top chord cover plates with skewback brackets. The upper lateral braces measure 1" in diameter in panels 2, 3, 6, and 7. They measure $^{7}/_{8}$" in diameter in panels 4 and 5. Sway or "knee" braces are T-sections located at each of the upper lateral struts. They are composed of two 2¼" angles riveted back-to-back, and die-bent at each end at 45 degrees in order to be riveted directly to the posts and upper lateral struts.

The floor beams of the high trusses are rolled steel I-beams. They are stamped "Pencoyd" on their webs, indicating that they were manufactured by the Pencoyd Iron Works of Philadelphia, Pennsylvania. The ends of the floor beams rest on hanger plates that are suspended from the pins at each panel point by 1⅛"-diameter U-bolts.

Resting on and bolted to the upper flanges of the floor beams are eight longitudinal stringers, spaced about two feet apart. Except for the two outermost members, each stringer is a 6" by 3 3/16" rolled I-beam; the two outermost members are 6" by 2" channels, turned inward.

Lower lateral bracing is composed of both square and round bars with upset and threaded ends attached to the floor beams with skewback brackets. Lower lateral bracing members are 1½" square bars in panels 1 and 8, and 1¼" square bars in panels 2 and 7. Toward the center of each span, lower lateral bracing members are 1⅛" round bars or rods in panels 3 and 6, and 1" round bars or rods in panels 4 and 5.

The roadway is 14'-9" wide, decked with 3" by 6" nail-laminated wooden planks, treated with bituminous preservative. The outer edges of the roadway are protected by 4" by 6" felloe guards. Bridge railings consist of two horizontal rows of 2" (inside diameter) pipe, attached to the posts with U-bolts at heights of 30" and 42" above the bridge floor.

Low Truss: The low or pony Pratt truss at the southwesterly end of the bridge is inclined at a 3% grade and measures 73"-10" between the centers of the bearing pins. Each of its five panels is 14'-9¼" long by 10'-0" high between pin centers.

The top chords and inclined end posts are built-up riveted box sections. The sides of these sections are two 6" by 2" channels joined back-to-back, 7½" apart, with 12¼" by ¼" continuous top plates and 12" by 4" by ¼" bottom tie plates. The tie plates are spaced 30 inches on centers on the upper chords. On the end posts, the tie plates are spaced 35 inches on centers. The bottom chords are die-forged steel eyebars in pairs, varying in cross-section according to the tensile stresses they resist. In panels 1, 2, 4, and 5, the eyebars have a cross-sectional dimension of 2" by 1". In the center panel, eyebars measure 3" by 1". Upper pins are 2½" and 1⅞" in diameter; lower pins are all 2½" in diameter. The movable end of the pony truss is on the stone south abutment and is a sliding plate bearing.

The posts or vertical members of the low truss are built-up riveted I-sections with flanges composed of 2" by 1½" by $^1/_8$" angles, turned out, and spaced 12" apart. The post webs are constructed of double 1¼" by ¼" lattice bars along the lengths of the posts, with 4" by ¼" tie plates at top and bottom ends.

The diagonal panel braces act in tension and are forge-welded wrought iron eyebars. The main diagonals, located in panels 2 and 4, are paired flat bars measuring 1½" by 1". The center panel has two adjustable diagonals that also function as counter-braces. These are composed of round bars (rods), 1¼" in diameter with upset ends, threaded to receive sleeve nuts.

Floor beams, hangers, stringers, and flooring match comparable elements on the three high truss spans. The lower lateral bracing differs, however, being composed of round bars, $1^1/_8$" in diameter, in panels 1 and 5; $^7/_8$" in diameter in panels 2 and 4; and $^5/_8$" in diameter in the center panel.

The railings on the low truss are composed of the same 2" (inside diameter) pipe as those on the high trusses.

Deck span: The steel beam deck span that serves as the northern approach is inclined at a 2% grade and has a clear span of 21'-3". The span is composed of six rows of 8" by 4" I-beam stringers spaced at intervals that vary from 2'-7" to 3'-1" on centers. The sides of this span are flanked with decorative lattice-type steel railings, 44" high and 24 feet long, that are constructed of 2" angles and 1¼" by ¼" lattice on a 12" spacing. Acorn-style cast iron finials were originally mounted on each end of the railing. One remains. The deck is 3" by 6" wood plank.

Substructure: The bridge is supported by stone abutments at its extreme ends. These wing-type abutments are constructed of random-coursed split granite.

Inner bridge seats are provided by four steel cylinder piers that rise to a height of roughly 16 feet above normal water level. Two cylinder piers in the river are equipped with slanting ice breakers facing upstream, while the two cylinder piers near each stone abutment are without ice breakers. The ice breakers are constructed of flat steel plates bent at angles and riveted to a length of steel angle that forms a battered cutting edge that uplifts, splits, and deflects ice and floating debris.

Each pier is constructed of two riveted cylinders, four feet in diameter, spaced 17 feet center-to-center and connected by solid steel plate bracing, continuous from top to bottom. The cylinders are formed from four rolled steel plate sections, five feet wide, joined vertically and horizontally with lapped and riveted joints. Each cylinder is filled with concrete and is supported by four timber piles that are driven into the streambed and extend up into the concrete to form an integrated structural unit. The cylinders are capped with ½" steel plates that support the bridge shoes.

Original appearance: Photographs taken when Meadow Bridge was new indicate that the appearance of the span has changed little since the 1890s except for slight loss or damage to some decorative elements of the trusses. The visual context of the bridge has changed somewhat with the reforestation of some stream bank areas near the bridge, and with the construction of a replacement bridge just downstream in 1984. The Androscoggin River has changed its course somewhat over the years, with the main force of the stream becoming concentrated toward the northern bank. The resulting deposition of sand and gravel under the spans of the bridge that stand closest to the southern bank of the stream has narrowed the river's width from 400 feet to 250 feet. The restricted channel diverted the force of the current to the northern bank, resulting in considerable riverbank erosion and undermining a bridge pier, threatening the stability of the bridge. Between May and August of 1977, the U. S. Army Corps of Engineers placed 200 feet of stone slope protection along the northern riverbank to stabilize the bank upstream and downstream of Meadow Bridge.[4] The Corps also attempted to stabilize the threatened pier by driving steel sheet piling around its base and filling the resulting coffer with concrete. This pier is again being undermined by the river's current, and has tilted and shifted somewhat.

[4] U. S. Army Corps of Engineers, New England Division, *Water Resources Development, New Hampshire: The Work of the U. S. Army Corps of Engineers in New Hampshire*, NEDEP-360-1-35 (November 1995), pp. 60-62.

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8. Significance:

The Meadow or Depot Bridge (New Hampshire Bridge Number 122/110) is significant as a rare surviving example of a once-common American metal bridge type, the multiple-span pin-connected through Pratt truss. The bridge retains integrity of location, design, setting, materials, workmanship, feeling, and association; its appearance is essentially unchanged since its completion in 1897 except for the proximity of a bypass bridge that was constructed a short distance downstream in 1984. Meadow Bridge embodies distinctive characteristics of a type, period, and method of bridge construction. The structure meets National Register Criterion A in the area of transportation for the time period 1897 to 1953, and Criterion C in the area of engineering for the time period 1897.

The Meadow Bridge is by far the most dramatic and costly of the few surviving pin-connected bridges in New Hampshire. It is an engineering landmark, representing the finest of design, materials, and construction by a leading American bridge fabricator of the late 1800s. It is a legacy from Shelburne's first era of prosperity as a tourist destination and a monument to local determination and commitment. More than a century ago, when town and state together could not afford to fund the full cost of this much-needed crossing, private citizens and summer visitors combined forces to make up the difference. The bridge they built stands today as a remarkable document in the history of New Hampshire transportation and engineering.

Significance, Engineering: Meadow Bridge is one of the longest pin-connected iron bridges ever built in New Hampshire. When the structure was erected in 1897, New Hampshire had only about ten multiple-span metal truss bridges, most of them crossing the Connecticut River. At 504 feet, Meadow Bridge surpassed all but one of these structures in total length.[5] Today, the bridge is New Hampshire's only intact multi-span pin-connected bridge, and is one of only a few dozen to survive nationwide.

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[5] The most notable multiple-span metal truss bridges in New Hampshire in 1897, apart from Meadow Bridge, were 1. Cheshire Bridge (1897) from Charlestown, N. H. to Springfield, Vermont, a three-span Pratt truss toll bridge with a total length of about 600 feet, built by the Berlin Iron Bridge Company of Berlin, Connecticut; 2. the West Lebanon Bridge (1897) from West Lebanon, N. H. to Hartford, Vermont, a double-intersection Warren truss and a low Pratt truss, with a total length of 427 feet; 3. Lyme Bridge (1896) from Lyme, N. H. to East Thetford, Vermont, a three-span Pratt truss bridge with a total length of 420 feet, built by the Canton Bridge Company of Canton, Ohio; and 4. Lyme Bridge (1896) from Lyme, N. H. to North Thetford, Vermont (1896) a two-span double-intersection Warren truss bridge with a total length of 380 feet. These four structures have all been destroyed.

In a national context, Meadow Bridge is one of a small group of pin-connected multiple-span bridges that survive to illustrate the typical American long-span river crossing of the latter decades of the nineteenth century. Nationally, some of this small surviving sample of multi-span bridges utilize Pratt trusses, as does Meadow Bridge; some use Parker or Pennsylvania trusses, which are variants of the Pratt truss with curved rather than straight top chords; and several, like Meadow Bridge, have shorter approach spans of low (pony) truss or stringer design.

In a national context, identified bridges that compare with Meadow Bridge include 1. The Fruita Bridge over the Colorado River in Colorado, built by M. J. Patterson Company in 1907 with three 155-foot, pin-connected Parker truss spans supported by cylindrical steel piers; 2. The Fort Benton Bridge over the Missouri River at Fort Benton, Montana, built by the Milwaukee Bridge and Iron Works in 1888 with one 75-foot Pratt through truss span, three 175-foot Baltimore through truss spans, and one 225-foot Pratt truss swing span (replaced by a fixed steel Parker truss span in 1925), all supported on cylindrical steel piers; 3. County Route 82 Bridge over the Tuscarawus River, Tuscarawus County, Ohio, built by the Wrought Iron Bridge Company in 1883 with three 86-foot pin-connected Pratt truss spans; and 4. Walnut Street Bridge over the Tennessee River in Chattanooga, Tennessee, designed by Edwin Thacher in 1891 with six subdivided (petit) camelback through truss spans.

Pin-connected highway bridges continued to be built in the United States after 1900, although American engineers increasingly adopted rigid, riveted connections for shorter-span steel bridges during the early years of the twentieth century. Among the several pin-connected steel bridges that carried the engineering principles embodied in Meadow Bridge to relatively late dates are 1. Cleves Bridge over the Great Miami River in Hamilton County, Ohio, built by the Penn Bridge Company in 1913 with four pin-connected Parker trusses, two having spans of 244 feet and two having spans of 202 feet; 2. County Route 15 Bridge over the Great Miami River in Hamilton County, Ohio, built by Capitol Construction Company in 1914 with three pin-connected Parker spans of 253 feet each; and 3. County Route 4 Bridge over the Scioto River in Pickaway County, Ohio, built by the Oregonia Bridge Company in 1914 with three pin-connected camelback spans of 233 feet each.

Meadow Bridge is significant as a rare surviving multi-span example of a once-common bridge type, the pin-connected Pratt truss. The bridge illustrates the American standard for a multiple-span bridge of unusual length just before the advent of the twentieth century. It is unusual in

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retaining steel cylinder piers, a once common type of bridge support that in time evolved into steel seamless pipe piers, still in use in the twenty-first century.

The Pratt truss was designed and patented in 1844 as a combination wood and iron bridge with parallel upper and lower chords and with vertical members or posts acting in compression and diagonal members acting in tension. The truss design did not become widely popular until wrought iron began to be used in the 1880s to replace wooden or partly-wooden trusses. By the 1890s, steel was beginning to replace wrought iron as a bridge material, and the Pratt truss quickly achieved dominance in bridge design.

In the early years of the twentieth century, steel Pratt truss bridges outnumbered every other truss design used in the United States. Pratt truss bridges may, in fact, have outnumbered all bridges built with all other truss designs, combined. Today, because of continual replacement, pre-1900 Pratt highway truss bridges have become rare.

The joints of the Meadow Bridge are connected with metal "pins"—large, threaded bolts—rather than by riveted gusset plates. Pin-connected iron or steel bridges were common in the late 1800s and early 1900s, but only a few remain in New Hampshire.

The use of pinned connections for bridge building reflects developments in structural engineering in the latter half of the nineteenth century. Prior to the mid-1800s, bridge builders designed their spans largely by intuition, developed from long experience. The efforts of a few scientific engineers gradually made it possible to calculate the precise stresses in each part of a bridge truss. The ability to analyze the stresses in each member and each joint permitted a bridge to be designed to bear a specific load—its "design loading"—and for each component of the truss to be proportioned to bear the stresses created by that loading.

When engineers design truss bridges, they simplify their initial calculations by assuming that every joint in the truss will be connected by a pin, and that the connections of each member can move slightly to keep the component aligned with the compressive or tensile forces imposed upon it by the weight of the bridge and the weight of traffic. In metal bridges with riveted connections, the rigid joints compromise this ideal design. Bridge members develop secondary stresses, especially bending stresses. But in pin-connected trusses, the finished bridge actually reflects the ideal design and performs accordingly.

Thus, the now-rare pin-connected truss may be said to represent the purest and least compromised form of bridge design. Because the finished bridge functioned exactly as intended in the original design, the pin-connected truss allowed accurate engineering calculations to be utilized in designing the bridge without the need for highly complex mathematics.

Bridges of the late 1800s and early 1900s were often designed to bear the weight of the standard twenty-ton steam road roller, a slow-moving machine that weighed more than any other vehicle that was likely to pass over a bridge in that era. Because pin-connected bridges were designed for the relatively light highway loads and low speeds associated with horse-drawn traffic, and because the components of these bridges were precisely proportioned for their design loading, pin-connected spans are among the lightest and most delicate of all bridges. These structures have an almost web-like quality that makes them among the most aesthetically attractive of metal spans. The logic and simplicity of their design make them especially appealing to engineers and historians of engineering.

Like the pin-connected superstructure, the tubular steel piers that support the truss seats of Meadow Bridge are rare survivors of a once-common type of substructure. In his monumental *Bridge Engineering* of 1916, the internationally acclaimed engineer John Alexander Low Waddell stated that concrete-filled steel cylinder piers "used to be the most common kind of pier in America."[6]

Cylinder piers were first constructed of cast iron and wrought iron in the 1870s and 1880s. After open hearth steel became commonplace and relatively inexpensive around 1890, this material replaced wrought iron in most applications.[7] Steel sheets, ranging in thickness from $^3/_8$" to $^5/_8$" and in width from four to eight feet, were rolled into cylindrical sections varying in diameter from four to fifteen feet. The cylinder ends were commonly overlapped several inches and joined by riveting. The cylinders were then joined end-to-end to attain the height needed in the finished pier. When piers rested on ledge, they were anchored by drilling the rock and grouting in steel rods that project up into the cylinders, which were then filled with concrete. When the piers were to stand on softer bottoms, as at Shelburne, several timber pilings were driven in a tight cluster, with their tops projecting up into the cylinders and subsequently encased in the concrete fill of the piers. In cases where piers were exceptionally tall or carried extreme loads,

[6] John Alexander Low Waddell, *Bridge Engineering* (New York: John Wiley and Sons, 1916), p. 1025.
[7] Ibid., p. 17.

concrete-filled cylinders of larger diameter, two or three times the size of the upper piers, were placed in the streambed as footings for the upper piers.

The two cylinders that make up a single pier were often linked together by cross bracing, sometimes of adjustable diagonal eyebars. Solid plate bracing, like that employed on Meadow Bridge, was usually employed for in-water piers to prevent the snagging of ice or debris.[8]

Meadow Bridge has further significance as the product of a once prolific bridge fabricating firm that possessed the machinery and equipment to compete with more local fabricators. As noted above, the Groton Bridge and Manufacturing Company of Groton, New York constructed Meadow Bridge. Founded in 1877 as the Groton Iron Bridge Company, the firm changed its name to the Groton Bridge and Manufacturing Company in 1887. The company manufactured punches and straightening machinery used in bridge fabrication, as well as woodworking machinery. Groton Bridge and Manufacturing Company maintained an eastern district office in Fitchburg, Massachusetts. This presence in eastern New England permitted the company to compete in that region with the Berlin Iron Bridge Company of Connecticut, which dominated bridge fabrication and sales in New England during the late 1800s.[9] The company was acquired by American Bridge Company in 1900 when American Bridge was striving to obtain a near monopoly on bridge fabrication in the eastern United States. American Bridge sold the firm to former owners in 1901. The purchasers renamed the company "Groton Bridge Company."

In addition to the Shelburne bridge, three surviving New Hampshire spans are known to have been erected by the Groton Bridge and Manufacturing Company or the later Groton Bridge Company. They are the Pingree Bridge in West Salisbury (1893), a pin-connected low Pratt truss; the Cavender Road Bridge over the Contoocook River, between Greenfield and Hancock (1906), also a pin-connected low Pratt truss; and the Patterson Hill Road Bridge in West Henniker (1915), a riveted high Pratt truss designed by engineer John Storrs of Concord.

Regionally, few spans built by the Groton Bridge and Manufacturing Company survive. Other than Meadow Bridge, the most notable Groton structure that has been identified in New England

[8] Richard M. Casella, "New Hampshire Historic Bridge Documentation, Meadow Bridge (NH Bridge No. 122/110)" (Needham, Mass.: Louis Berger Group, Inc., January 2003), quoting Waddell, *Bridge Engineering*, pp. 1025-1027; W. A. Mitchell, Civil Engineering (Washington, D. C.: The Society of Military Engineers, 1937), pp. 339-341; and *Engineering News and American Contract Journal* (1882):212.
[9] Victor Darnell, *Directory of American Bridge Building Companies, 1840-1900* (Washington, D.C.: Society for Industrial Archaeology, 1985).

is the University Avenue Bridge (1896) in Lowell, Massachusetts. It is composed of three pin-connected Pratt deck truss spans.

The Meadow Bridge is the most remarkable of the pin-connected Pratt truss spans that survive in New Hampshire. The Meadow Bridge combines three identical high Pratt trusses, and one low Pratt truss. Beyond Shelburne, only two single-span high pin-connected Pratt truss bridges survive in New Hampshire. The first, the Stratford-Maidstone Bridge over the upper Connecticut River, was built by the Berlin Iron Bridge Company in 1893. Long closed to traffic, this bridge will soon be rehabilitated for vehicular traffic by the states of New Hampshire and Vermont.

The other high pin-connected Pratt truss bridge is the Thompson's Crossing Bridge over the Contoocook River, between Antrim and Bennington, New Hampshire. It, too, was built by the Berlin Iron Bridge Company in 1893. It was abandoned in 1976 and today is derelict, with no flooring.

Similarly, there are two New Hampshire short-span bridges that are comparable to the low Pratt truss span at the southern end of the Meadow Bridge. As mentioned above, both were built by the Groton Bridge Company. These are the Pingree Bridge, a pin-connected low Pratt truss span built in 1893 over the Blackwater River in West Salisbury, and the Cavender Road Bridge, a similar span built in 1905 over the Contoocook River between Hancock and Greenfield, New Hampshire.

Significance, Transportation: Meadow Bridge is significant as a transportation structure both on a regional basis and as a crucial link within the transportation network of the town of Shelburne.

On a regional basis, Meadow Bridge represents one of the first manifestations in northern New Hampshire of the Good Roads movement, a national initiative to improve roads and bridges and thereby to overcome a sometimes-crippling lack of investment in the highway system of the United States. By the late 1800s, the Good Roads movement had been espoused by individual state governments, by the federal government, and by various special interest groups. Chief among the latter was the League of American Wheelmen, a national fraternity of bicyclists who lobbied hard and successfully for better highway transportation. Founded in 1880, the League began to publish *Good Roads* magazine in 1892. The introduction in the 1880s of the "safety" bicycle, with its chain drive and two wheels of equal size, made cycling a sport for long-skirted women as well as for men, and the bicycle lobby gained in power and influence. Colonel Albert A. Pope of Boston, manufacturer of the famous Columbia bicycle and the benefactor of a course in highway engineering at the Massachusetts Institute of Technology in 1890, led the League's Good Roads campaign.[10]

Beginning in 1897, the New Hampshire Board of Agriculture began to hold Good Roads institutes in various parts of the state. Nahum J. Bachelder, secretary of the Board of Agriculture and governor from 1903 to 1905, wrote a widely-syndicated weekly newspaper column on the subject of good roads. Frank West Rollins, governor from 1899 to 1901, wrote and lectured widely on the subject, proposing a series of north-south boulevards in New Hampshire that were eventually built after the turn of the twentieth century and became the basis of New Hampshire's trunk line highway system.

As roadway surfaces and grades improved under the impetus of the Good Roads movement, competing private bridge companies began to offer moderately-priced metal truss spans to replace covered wooden bridges that in many cases were aging and deteriorating. These companies employed their own structural engineers, who utilized the kind of analysis described above under "*Significance: Engineering*" to design light and efficient structures. The first of the metal bridge fabricators to achieve notable success in New England was the Corrugated Metal Company, incorporated in Berlin, Connecticut, in 1873. Using its own metal fabricating equipment, the company began to manufacture pin-connected bridge trusses of wrought iron, forging its own eyebars for the bottom chords. In 1883, the company acknowledged its increasing success in the bridge business by renaming itself the Berlin Iron Bridge Company. In 1889, the company claimed to have built over ninety percent of the iron highway bridges that had been erected in New England and New York over the preceding decade.[11] A partial list of the Berlin Iron Bridge Company's New Hampshire bridges, published in 1898, shows that the company had by then built forty-three parabolic truss bridges, twenty-nine truss bridges of other patterns, and seven girder bridges in this single state.[12]

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[10] Donna-Belle Garvin and James L. Garvin, *On the Road North of Boston: New Hampshire Taverns and Turnpikes, 1700-1900.* Hanover, N. H.: University Press of New England, 2003, pp. 184-191.
[11] Victor Darnell, "Lenticular Bridges from East Berlin, Connecticut," *IA: The Journal of the Society for Industrial Archaeology* 5 (1979): 19-32.
[12] "Partial List of Highway Bridges Built by the Berlin Iron Bridge Company in the State of New Hampshire," *Berlin Bridges and Buildings* 1 (October 1898): 106-7.

As mentioned above, the Groton Bridge and Manufacturing Company of Groton, New York, was able to compete successfully with the Berlin Iron Bridge Company in many cases by maintaining an eastern district office in Fitchburg, Massachusetts. Competition between rival bridge companies in the late 1800s was rigorous, with each company sending salesmen to small towns to convince boards of selectmen (whose names typically appear on the cast iron builder's tablets on the finished bridge) of the virtues of their company's product. Bids were apparently figured to the nearest penny, as illustrated by the following anecdote of a three-way bidding competition in Vermont, related by an agent for the Owego Bridge Company of New York and quoted by bridge historian Richard Sanders Allen:

> Well, they opened the bids and the Ohio man was 'way high. Next was our bid—$9081.14. And when they opened Berlin's bid it was *exactly* the same; right to the penny! The Berlin man and I were flabbergasted, but the [bridge] commissioners thought it was funny. Finally one of 'em pulled out a shiny silver dollar and we flipped for the bridge contract. The Berlin man won and they built it. Later on I met up with him again over East, under just about the same circumstances. That time our bid was just eighteen cents under his and *we* got the job.[13]

The entrepreneurial vigor of these rival companies during the late 1800s severely weakened the long dominance of the covered wooden bridge during the early years of the Good Roads movement, filling New England's river valleys with new metal spans of radically different materials, appearance, and structural behavior.

On a local basis, Meadow Bridge was intimately associated with Shelburne's late nineteenth century history and was crucial to the town's development as a popular summer destination. The arrival of the Atlantic and Saint Lawrence Railroad at Shelburne about 1850 connected the small community to Portland, Maine, and inaugurated the potential of income from tourists who sought refreshment in New Hampshire's White Mountains. Although the town of Gorham, six miles to the west, quickly claimed priority as the eastern gateway to the White Mountain region when the rail line was extended beyond Shelburne, Shelburne became and remained the site of a quiet summer boarding business.

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[13] Richard Sanders Allen, "Iron Bridges: They Spanned an Era from Wood to Steel," *Vermont Life* 18 (Winter 1963-64): 15-18.

Until the mid-1800s, all crossings of the Androscoggin River in the township of Shelburne were made by fording at low water, by passing over the ice in wintertime, or by rope-drawn ferry. Prior to construction of the first bridges, a law of 1832 had authorized a private company, the Shelburne & Androscoggin Bridge Corporation, to "build a bridge over the Androscoggin in Shelburne . . . at any convenient place between the Farm of George Green on the south side of said River and the Farm of Jonas Green on the north side of said River, or at any other convenient place within three miles next above," and to charge tolls for passage across this bridge.[14] There is no indication that the corporation ever exercised its right to construct a toll bridge, and the charter became void after five years.

In 1851, Enoch Hubbard constructed the first bridge across the river above the river's confluence with Lead Mine Brook, some three miles upstream from Meadow Bridge.[15] The first bridge soon failed and was replaced. A total of some seven bridges have crossed the Androscoggin in this vicinity, upstream from the main village of Shelburne and from Meadow Bridge.

The State of New Hampshire began to promote the summer boarding industry actively and persuasively in the 1880s. Shelburne, with its rail connections and scenic beauty, saw the establishment of summer vacationing establishments, some of which persist to the present day.

By the 1890s, Shelburne's tourist business supported four inns, two of which were located on the north side of the Androscoggin River. Visitors disembarking from the trains were transported to the northern boarding houses only by fording the river at a crossing known as "the ford" in carriages sent by each inn.

Meadow Bridge was the first span to be built at "the ford," and the only crossing at this location until a bypass bridge was constructed a short distance downstream (easterly) in 1984. Construction of Meadow Bridge in 1897 immediately enhanced the accessibility of the resorts on the northern side of the river and was crucial to their continued success. The proprietor of the Philbrook Farm Inn, located north of the river and one of the largest of Shelburne's boarding houses, was Augustus Philbrook, a prominent local citizen active in the town government and a driving force behind the building of the Meadow Bridge. As one of the town's selectmen,

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[14] *Laws of New Hampshire*, Volume 10, Second Constitutional Period, 1829-1835 (Concord, N.H.: Evans Printing Company, 1922), pp. 267-369.
[15] Margaret Merrell, ed., *Shelburne, New Hampshire: Its First Hundred Years* (Berlin, N.H.: Smith & Town Printers, 1969), pp. 42-43.

Philbrook urged construction of the bridge. He later served as the town's construction supervisor for the project, working on a volunteer basis.[16] When the bridge was dedicated on October 23, 1897, the value of the span to Shelburne's economy was apparent to all. The day was heralded in the local paper "as the most eventful day of any growing summer resort."[17]

The construction of one of the longest bridges in New Hampshire in a town that had a permanent population of fewer than 300, in a location where no bridge had stood before, would have been impossible without the combined efforts of town and state governments and local philanthropy. State representative Wesley W. Wheeler of Shelburne introduced a joint resolution in the House of Representatives in its session of January, 1897, proposing that the State of New Hampshire appropriate $6,000, to be matched by $4,000 from the Town of Shelburne, to construct the new bridge. The resolution was referred to the Committee on Roads, Bridges, and Canals, who eventually recommended approval of the resolution on condition that the state appropriation be reduced from $6,000 to $2,500. The Senate concurred, and the resolution passed in March 1897.[18] The state eventually paid its share of the cost of building the bridge from its fund for building roads in the White Mountains, a region in which the legislature regularly made appropriations to overcome the inability of the sparse local population to fund improvements in transportation.[19]

Because the legislature reduced the state appropriation from a requested $6,000 to $2,500, the Town of Shelburne was left with a funding shortfall of $3,500. Local citizens proceeded to raise funds privately to augment the town's appropriation of $4,000 and the state's $2,500. By the time the local bridge committee rendered its report in 1898, local subscriptions to the bridge fund

[16] "Architectural/Historical Evaluation of Meadow Bridge, Shelburne, New Hampshire," submitted by the New Hampshire Department of Public Works and Highways. Prepared by Roger A. Brevoort, Preservation Planning Consultant, for Archaeological Research Services, University of New Hampshire, Durham, New Hampshire, February 1981, pp. 5-6.

[17] *The Mountaineer*, November 10, 1897.

[18] *Journals of the Honorable Senate and House of Representatives of the State of New Hampshire, January Session, 1897* (Manchester, N.H.: Arthur E. Clarke, 1987), pp. 255, 258-9, 362, 400, 660, 776, 786, 791.

[19] *Report of the State Treasurer of the State of New Hampshire for the Year Ending May 31, 1898* (Manchester, N.H.: Arthur E. Clarke, 1898), pp. 30-31. At this period, Shelburne had a total population of about 283; see New Hampshire State Planning and Development Commission, *Population of New Hampshire, Part I, Basic Data on Growth and Distribution Since the Time of Settlement, 1623-1940* (Concord, N.H.: by the Commission, 1946), pp. 14-15.

totaled $3,564.80.[20] These local funds were raised through local subscription, largely through the efforts of the Hon. William Kronberg Aston, a summer resident from New York who superintended the collection of numerous small contributions. Donations came from both local residents and summer visitors, confirming the relationship between the bridge and the tourist business.[21]

The Groton Bridge Company built the structure for a contract price of $10,000. Additional costs included $40 for extra grading, $20 for Portland cement, and $4.80 for freight. Total cost of the project was $10,064.80.[22] The town took charge of the contract for construction.

The Town of Shelburne was apparently satisfied with the performance of the Groton Bridge and Manufacturing Company. The year before contracting for the multi-span bridge over the Androscoggin, the town had paid $535 to the same firm for a new bridge over Clement or Clemens Brook. This was described as "a three-panel, pony truss, about 37½ feet long, with a plank floor, and a sixteen foot roadway."[23] The Clement Brook Bridge was replaced by a concrete slab in 1929.[24] In 1898, the town again paid Groton Bridge and Manufacturing Company $350 for a new bridge over Burbank or Mill Brook. It was described as "a three panel, pony, Warren [truss], about 42 feet long."[25] This bridge was replaced by a concrete rigid frame in 1962.[26]

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[20] *Annual Report of the Town Officers of Shelburne, N.H. for the Fiscal Year Ending February 15, 1898* (Gorham, N.H.: Mountaineer Job Print, 1898), p. 11.

[21] "Architectural/Historical Evaluation of Meadow Bridge, Shelburne, New Hampshire," submitted by the New Hampshire Department of Public Works and Highways. Prepared by Roger A. Brevoort, Preservation Planning Consultant, for Archaeological Research Services, University of New Hampshire, Durham, New Hampshire, February 1981, pp. 5-6.

[22] *Annual Report of the Town Officers of Shelburne, N.H. for the Fiscal Year Ending February 15, 1898* (Gorham, N.H.: Mountaineer Job Print, 1898), p. 11.

[23] Letter, John W. Storrs to R. T. Hodge of the Groton Bridge Company, May 25, 1914.

[24] *Financial Report of the Town Officers of Shelburne, N.H. for the Fiscal Year Ending February 15, 1897* (Gorham, N.H.: Mountaineer Job Print, 1897), pp. 2, 8.

[25] Letter, John W. Storrs to R. T. Hodge of the Groton Bridge Company, May 25, 1914. The Burbank or Mill Brook Bridge is pictured in *Shelburne, New Hampshire: Its First Hundred Years* (Berlin, N.H.: Smith & Town Printers, 1969), p. 42.

[26] *Annual Report of the Town Officers of Shelburne, N.H. for the Fiscal Year Ending February 15, 1899* (Gorham, N.H.: Weston Printer, 1899), pp. 3, 8. The Burbank or Mill Brook Bridge was a low Warren truss. It is pictured in *Shelburne, New Hampshire: Its First Hundred Years* (Berlin, N.H.: Smith & Town Printers, 1969), p. 42.

The location of the multi-span Meadow Bridge became a matter of some local discussion. Originally, "Gates Crossing," upstream of the present bridge and south of the home and summer boarding house of Miss S. A. Gates on North Road, had been suggested. Miss A. Whitney, who lived across the road from Miss Gates, reportedly felt that the proposed bridge location would be too close to her home. She offered to contribute no less than $1,000 to the building fund if the bridge were placed farther downstream.[27]

The town history reports that "Silas Morse, who owned the farm on the south side [of the Androscoggin] refused to allow the workmen to pile the girders on the [river] bank, claiming ownership of the land to mid-river. This brought things to a standstill until Augustus Philbrook recalled having heard the previous owner comment that whereas adjacent property lines went to the middle of the river, his stopped at the bank. The deeds verified this, and since the bank was defined at high water, the area where the men were to work was not under Mr. Morse's control and the building could proceed."[28]

Despite this reported settlement, Silas P. Morse did derive some financial benefit from the bridge project. The town report of 1898 shows that the town paid Morse $200 for land damages.[29] Morse owned land adjacent both to the river and the railroad depot, and undoubtedly the layout of the road to the new bridge, and perhaps the need for additional staging areas, affected Morse's property.

The town history quotes a report of the dedication of the bridge on October 23, 1897, which appeared in the *Mountaineer* newspaper, published in Gorham, New Hampshire, on November 10, 1897:

> The day itself was perfect and the charm of the autumnal scenery enchanting. All nature smiled upon the scene as the largest number of people ever assembled in the history of the town gathered to participate in the opening of the new bridge.

[27] *Shelburne, New Hampshire: Its First Hundred Years*, p. 43.
[28] Ibid., p. 44
[29] *Annual Report of the Town Officers of Shelburne, N.H. for the Fiscal Year Ending February 15, 1898* (Gorham, N.H.: Mountaineer Job Print, 1898), p. 2.

Some 600 persons coming by team, on the train, and on bicycles took part in the ceremonies. The procession formed on the common near the Winthrop House, under the direction of Col. Martin L. Burbank, who acted as marshal. Col. Burbank is now 71 years of age and the oldest male resident, but is still vigorous and handled the procession in an efficient manner. Headed by the Gorham brass band, over one hundred teams followed in line to the bridge where the exercises were held.

All in all, it is an elegant bridge, and one of the best spanning the Androscoggin River. Three handsome American flags, gracefully draped over the iron braces, added beauty and attractiveness as the long procession passed over the bridge, and, countermarching, recrossed to the village side, where after music by the band, the assembly was called to order by James Simpson, who gracefully acted as master of ceremonies. Prayer was offered by Rev. Edward P. Green, and the Hon. William Kronberg Aston was introduced as orator of the day.

Mr. Aston paid tribute to the generosity of the citizens in devoting time and money to the project, especially praising Miss Whitney for her contribution. He commended the committee, the engineer, the town's state representative, [Wesley W. Wheeler,] and Mr. A. E. Philbrook, who contributed generously in both money and time, watching every detail of the construction. After other words of praise, Mr. Aston concluded, "May the gods protect the structure and allow it to stand throughout the ages at this ideal site."

Other speakers followed and the Rev. E. P. Green closed with remarks on the bond of union in the town which the bridge would furnish. Finally, Brainerd C. Burbank, with a four-in-hand and a party of townspeople, then forded and re-forded the river, showing the old method of crossing, now happily, forever a thing of the past, to be recalled only in memory.[30]

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[30] *Shelburne, New Hampshire: Its First Hundred Years* (Berlin, N.H.: Smith & Town Printers, 1969), pp. 44-45.

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Verbal Boundary Description

The nominated property is limited to the bridge and its abutments (see attached sketch map). The total length of the bridge is about 505 feet, and the overall width, including the piers and their upstream ice breakers, is about 25 feet.

Boundary justification

This boundary includes all the property historically associated with this bridge.

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Section Page

Name of property Meadow Bridge

County and state Coos/ New Hampshire

Name of multiple property listing N/A

PHOTOGRAPH LABELS

The following pertains to all four views:

1.) Meadow Bridge
2.) Shelburne (Coos County) NH
3.) Photographer: James L. Garvin
4.) Photographs taken September 5, 2003
5.) Negatives at: New Hampshire Division of Historical Resources, Concord NH

Photo #1:

View: Looking west from a point near the eastern abutment of the bridge, showing the three high (through) truss spans, and the low (pony) truss span at far left.

Photo #2:

View: Looking northeast from a point near the western abutment of the bridge, showing the low (pony) truss span (left) and the three high (through) truss spans.

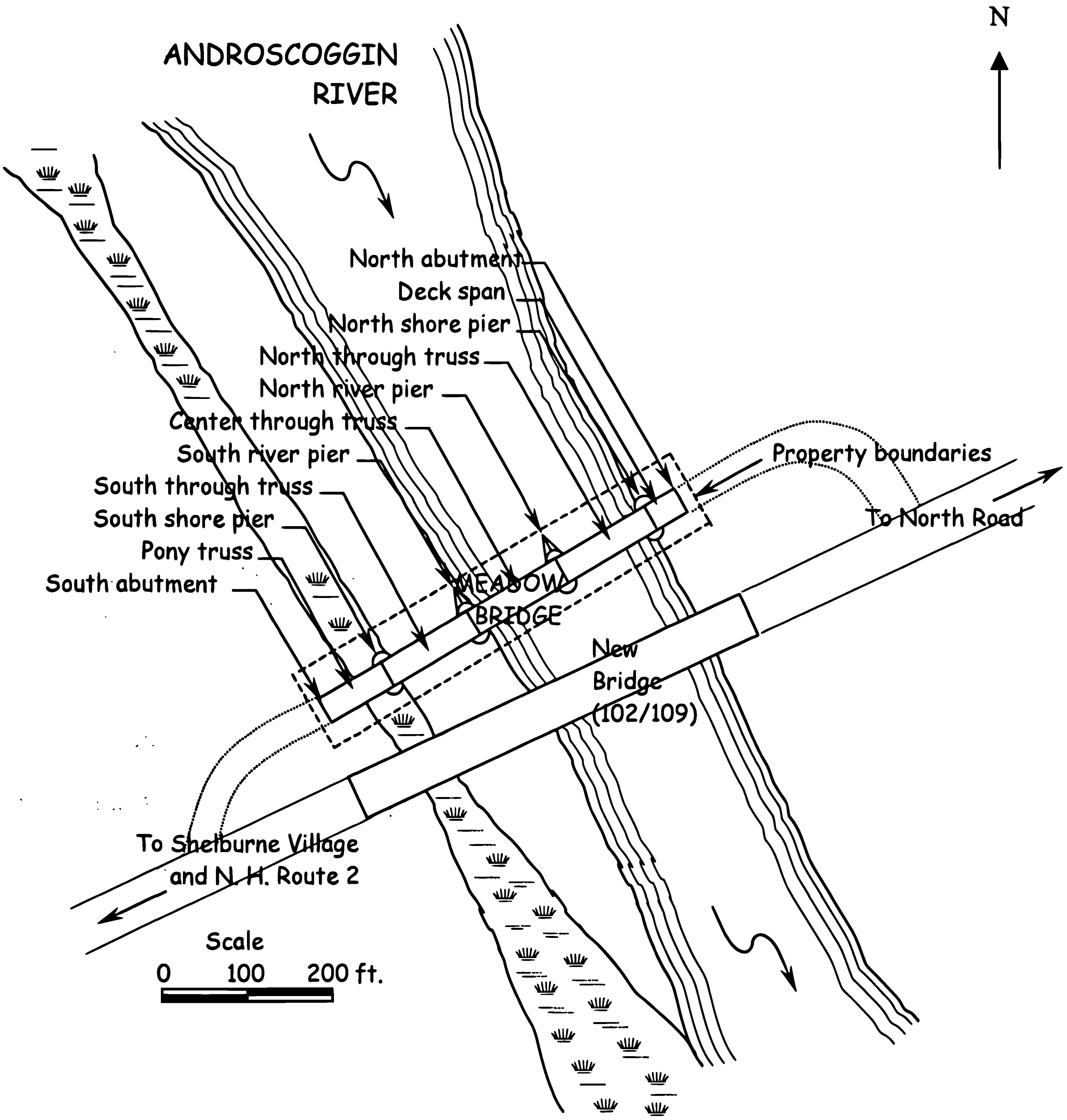
Photo #3:

View: Looking northwest from the adjacent Bridge 102/109, showing the low (pony) truss span.

Photo #4:

View: Looking north-northwest from a point near the eastern abutment of the bridge, showing the steel beam (stringer) deck span and its riveted steel lattice railing.

SKETCH MAP, MEADOW BRIDGE, SHELBURNE, N. H.



NATIONAL REGISTER OF HISTORIC PLACES
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KEY TO PHOTOGRAPHS