

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 an 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 Deep River Camelback Truss Bridge

other names/site number Truss Bridge #155

2. Location

street & number Adjacent to SR 2153 over Deep River N/A not for publication

city or town Cumnock-Gulf vicinity

state North Carolina code NC county Chatham/Lee code 037 zip code 27256

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, 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.)

William J. Pringle, SHPO 5-3-95
Signature of certifying official/title Date

State of 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 certifying official/Title Date

State or Federal agency and bureau

4. National Park Service Certification

I hereby certify that the property is:	Signature of the Keeper	Date of Action
<input type="checkbox"/> entered in the National Register. <input type="checkbox"/> See continuation sheet.	_____	_____
<input type="checkbox"/> determined eligible for the National Register <input type="checkbox"/> See continuation sheet.	_____	_____
<input type="checkbox"/> determined not eligible for the National Register.	_____	_____
<input type="checkbox"/> removed from the National Register.	_____	_____
<input type="checkbox"/> other, (explain:)	_____	_____

Name of Property

County and State

5. Classification

Ownership of Property

(Check as many boxes as apply)

- private
- public-local
- public-State
- public-Federal

Category of Property

(Check only one box)

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

Number of Resources within Property

(Do not include previously listed resources in the count.)

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

Name of related multiple property listing

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

N/A

Number of contributing resources previously listed in the National Register

0

6. Function or Use

Historic Functions

(Enter categories from instructions)

TRANSPORTATION - road-related (vehicular)

Current Functions

(Enter categories from instructions)

TRANSPORTATION - pedestrian-related

7. Description

Architectural Classification

(Enter categories from instructions)

Other: camelback truss

Materials

(Enter categories from instructions)

foundation Stone/Concrete

walls _____

roof _____

other Steel

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.)

- 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.
- 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 a significant and distinguishable entity whose components lack individual distinction.
- D** Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations

(Mark "x" in all the boxes that apply.)

Property is:

- A** owned by a religious institution or used for religious purposes.
- B** removed from its original location.
- C** a birthplace or 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)

Engineering

Transportation

Period of Significance

1910-1945

Significant Dates

1910

1932

Significant Person

(Complete if Criterion B is marked above)

N/A

Cultural Affiliation

N/A

Architect/Builder

Unknown

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:

- State Historic Preservation Office
- Other State agency
- Federal agency
- Local government
- University
- Other

Name of repository:

Deep River Camelback Truss Bridge
Name of Property

Chatham/Lee, North Carolina
County and State

10. Geographical Data

Acreage of Property Less than one acre

UTM References

(Place additional UTM references on a continuation sheet.)

1

17	6	5	9	3	4	0	3	9	3	7	5	2	0
Zone	Easting			Northing									

3

Zone	Easting			Northing									

4

Zone	Easting			Northing									

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 Alex Reinberg, Intern, and Michael Southern, Staff

organization N.C. State Historic Preservation Office date April 14, 1995

street & number 109 E. Jones Street telephone 919-733-6545

city or town Raleigh state NC zip code 27601-2807

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 SHPO or FPO.)

name Deep River Park Association Margaret Jordan-Ellis, President

street & number P.O. Box 30 telephone _____

city or town Gulf state NC zip code 27256-0030

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 *et seq.*).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Projects (1024-0018), Washington, DC 20503.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Deep River Camelback Truss Bridge
Chatham and Lee counties, N.C.

Section number 7 Page 1

Narrative Description:

Truss Bridge #155 is a steel camelback truss resting on stone and concrete piers, with a macadam road surface. It spans the Deep River in a quiet rural setting amid woods and farmlands on both sides of the river. Originally erected about 1910 over Neal's Creek near Lillington in Harnett County, about thirty miles to the southeast, the bridge was disassembled and re-erected at the present site over Deep River in 1932. The bridge is 160 feet long, with its deck thirty-four feet above Deep River. The deck is fifteen and one-half feet wide. It is reached by steel and concrete approach spans of 105 feet from the north and ninety-nine feet from the south, both of which were rebuilt in 1950. The pentagonal top chord is thirty feet above the deck at its highest point. The northern end is supported by a random-laid undressed stone pier with concrete cap; this pier apparently survives from the first bridge erected at the site in the nineteenth century. A pair of twentieth-century concrete piers supports the southern end. The concrete deck has a macadam surface. Each of the two identical steel trusses is divided into eight panels. The trusses are connected by the typical system of bracing, with portal, lateral, and sway braces. The truss system is pin-joined. The trusses have die-punched eyes on the bottom chords but also forge-welded double clevises on all tie bars. The remains of the earthen base and timber support for the central pier of an earlier bridge may be seen below the bridge.¹

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Deep River Camelback Truss Bridge
Chatham and Lee counties, N.C.

Section number 8 Page 2

Summary:

The Deep River Camelback Truss Bridge, identified as Truss Bridge #155 by the North Carolina Department of Transportation, spans the Deep River on SR 2153 north of the community of Cumnock in northern Lee County, providing access between Cumnock and the Gulf community in southern Chatham County. This section along the Deep River was the site of coal, iron, and copper mining operations and iron foundries through much of the nineteenth century. The present bridge was erected at this location in 1932, but it had originally been constructed about 1910 over Neals Creek near Lillington in Harnett County, about thirty miles to the southeast. When a new bridge was erected at Lillington in the early 1930s, this camelback truss bridge was salvaged and reassembled to replace a wooden bridge over Deep River that had burned about 1929. Bridges have served this location at least as early as 1833. A nineteenth-century fieldstone pier supports the present bridge on the north end and probably dates to the earliest bridge at the site, called Evans Bridge after Peter Evans, whose plantation, Egypt, lay on the south bank of the river.

Truss Bridge #155 is a camelback truss bridge, 160 feet long and divided into eight panels, with the two trusses joined by a system of portal, lateral, and sway braces. The bridge was one of 259 metal truss bridges (of which sixteen were camelback trusses) on the North Carolina highway system that were surveyed in 1979 in a joint project of the North Carolina Department of Transportation, the Federal Highway Administration, and the North Carolina Historic Preservation Office. It was one of thirty-five bridges (including eight camelback trusses) formally determined eligible for the National Register under criterion C as important examples of metal truss engineering technology in the state from 1880 to 1935, and under criterion A for associations with transportation improvements in the state in the early twentieth century. Today Truss Bridge #155 is one of only four camelback trusses surviving in North Carolina.

In 1992 the Department of Transportation completed a new concrete bridge spanning the Deep River east of Truss Bridge #155. Ownership of the older bridge has been transferred to the Deep River Park Association, and it will be preserved in place as part of the group's Rails-Trails route now under development.

Criteria Exception:

United States Department of the Interior
National Park ServiceNational Register of Historic Places
Continuation SheetSection number 8 Page 3Deep River Camelback Truss Bridge
Chatham and Lee counties, N.C.

Truss Bridge #155 was originally constructed about 1910 over Neals Creek near Lillington in Harnett County, N.C. When a new bridge was constructed at that site in the early 1930s, the older bridge was salvaged and reassembled at its present location over Deep River, about thirty miles northwest of the original site, to replace an older wooden bridge that had burned. The bridge meets criteria consideration B because it is chiefly significant under criterion C as a work of engineering representing an important phase of the state's transportation history, and is one of only four camelback trusses surviving in the state. Also, because it has been at its present location more than fifty years, and because it occupies a site spanned by bridges since the early nineteenth century, it is significant under criterion A for its associations with the development of transportation systems along the Deep River.

Historical Background and Transportation Context:

Truss Bridge #155 over the Deep River from Chatham County to Lee County was reassembled in 1932 on the site of a wooden truss bridge that had burned about 1929. Bridge #155 had originally stood over Neals Creek on US 401 near Lillington in Harnett County, about 30 miles to the south-east, where it is believed to have been constructed about 1910.² The *Sanford Herald* of December 3, 1931, reported that the work on the replacement bridge over the Deep River would soon begin, and that the steel came from a bridge at Lillington that was being replaced by a new structure.³

The earliest historical mention of a bridge at the site over Deep River was in 1833 when it is designated as Evans Bridge on a map of Chatham County.⁴ The early bridge was probably carried by stone piers, one of which survives and serves as support for the present-day bridge on its northern end.⁵ The crossing at this point connected the north bank with the plantation of Peter Evans, which was known as Egypt, on the south bank. This section of the Deep River was the site of several nineteenth century coal, iron, and copper mining operations, and several iron furnaces were established here. In 1855, the Egypt Coal Mine was established and in 1862 the Endor Iron Works were begun. The same year saw the location of a terminal of the Western Railroad on the south bank specifically for the transport of the products of these two sites to Fayetteville, from whence they were shipped by boat down the Cape Fear River to Wilmington.⁶ Proprietorship of the bridge from 1868 to 1873 was in the hands of William P. Hadley, who maintained it as a toll crossing. It was later maintained at public expense as a free bridge. That bridge was destroyed by a storm in 1907.⁷ It was apparently replaced by another wooden truss bridge that stood until about 1929.

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Section number 8 Page 4

Deep River Camelback Truss Bridge
Chatham and Lee counties, N.C.

In 1990, the North Carolina Department of Transportation called for the replacement of the bridge #155 and advertised for its removal, rebuilding, and maintenance at another site by a responsible entity.⁸ Negotiations resulted in acquisition by the Deep River Park Association and maintenance of the historic bridge *in situ* as part of a new rails-to-trails program. A new concrete bridge has been constructed over the Deep River just east of Truss Bridge #155 and SR 2153 rerouted over the new structure.

Engineering Context:

Truss Bridge #155 is one example of the many camelback metal truss bridges constructed in the United States in the first decades of the twentieth century. Metal truss bridges in North Carolina were categorized according to the following truss configuration types by George Fore in a 1979 study: Pratt pony; Warren pony; Pratt half-hip; Pratt through; Parker through; camelback through; petit through; Warren through with double intersections; Warren through with parallel chords; and Warren through with polygonal top chord.⁹ Fore noted that North Carolina truss bridges still surviving in 1979 "represent the higher order of truss bridge development" due to their genesis in a later era of building which applied design principles and controlled material quality more strictly than had been the case in earlier periods.¹⁰

The camelback design is technically a variation of the Pratt through truss and is defined by its pentagonal top chord.¹¹ Generally, examples of metal trusses erected prior to 1900 were of wrought iron with pinned joints. Steel replaced wrought iron after about 1910 and rivets began to be used in place of pins at joints about 1900.¹² It can be broadly stated that metal truss bridges with pin joints were constructed prior to 1920.¹³ The earlier widespread use of pins rather than rivets has been described as providing greater insurance of joint integrity. While riveted construction achieved greater rigidity, it also allowed a greater possibility of failure.¹⁴ The bridge concerned here may be considered advanced on one hand because of its use of steel as a material rather than wrought iron. On the other hand, its use of pins rather than rivets, while potentially providing a more reliable structure, is a retention of a tested method rather than an a more mechanized innovation. Fore notes the use of forge-welded double clevises as another instance of an earlier, less-mechanized technological practice.¹⁵

In 1979, a North Carolina truss bridge survey was co-sponsored by the North Carolina Department of Transportation, the Federal Highway Admin-

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Deep River Camelback Truss Bridge
Chatham and Lee counties, N.C.

Section number 8 Page 5

istration, and the North Carolina Historic Preservation Office. All 257 metal truss bridges on the state road system still standing at the time were surveyed. The bridges were then evaluated by a joint committee of the three sponsoring agencies according to type, integrity, setting, and historical associations. Of the 257 bridges surveyed, 35 were determined eligible for listing in the National Register as the best examples of their respective types with the highest integrity of form and setting. Truss Bridge #155 was among the bridges determined eligible.

In 1995 the Department of Transportation reported that of the 257 metal truss bridges in NC in 1979, only ninety-nine remained standing at the beginning of 1995. Of the thirty-five determined eligible in 1979, only eighteen were still standing in 1995. Fifteen camelback trusses were standing in 1979, but only four remained in 1995.¹⁶ Truss Bridge #155 survives as one of the few examples of an important phase of transportation and engineering history in the state.

Endnotes:

1. Rachel Osborn and Ruth Selden-Sturgill, *The Architectural Heritage of Chatham County, North Carolina* (Pittsboro, N.C.: Chatham County Historical Association, 1991), 259-60 (hereafter cited as Osborn and Selden-Sturgill); and George Fore, *North Carolina's Metal Truss Bridges: An Inventory and Evaluation* (Raleigh, NC: NC Division of Archives and History, Department of Cultural Resources and NC Division of Highways, Department of Transportation, 1979), 91 and 95-6 (hereafter cited as Fore).
2. Woolpert Consultants, *Preliminary Case Report for the Replacement of Chatham County Bridge No. 155 on State Route 2153 over the Deep River* (report, N.C. Department of Transportation, Raleigh, 1988), 5.
3. *Sanford* (N.C.) *Herald*, December 3, 1931.
4. Osborn and Selden-Sturgill, 259.
5. Fore, 2.
6. Osborn and Selden-Sturgill, 259.
7. Osborn and Selden-Sturgill, 259-60.
8. Osborn and Selden-Sturgill, 260.
9. Fore, p.2.
10. Fore, 1.
11. Larry Jochims, "National Register Multiple Properties Nomination for Metal Truss Bridges in Kansas, 1861-1939" (Kansas State Historical Society, Topeka, KS, 1989), section E, 2. (Hereafter cited as Jochims).
12. Jochims, section F, p.1.
13. Fore, 2.
14. Jochims, section F, 1.
15. Fore, 91.
16. N.C. Department of Transportation, Bridge Maintenance Unit, report

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Deep River Camelback Truss Bridge
Chatham and Lee counties, N.C.

Section number 8 Page 6

entitled "North Carolina Steel Truss Bridge Inventory," March 30, 1995.
Copy in library of Survey and Planning Branch, N.C. State Historic
Preservation Office, Raleigh.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Deep River Camelback Truss Bridge
Chatham and Lee counties, N.C.

Section number 9 Page 7

Bibliography:

Fore, George. *North Carolina's Metal Truss Bridges: An Inventory and Evaluation*. Raleigh: North Carolina Division of Archives and History, Department of Cultural Resources and North Carolina Division of Highways, Department of Transportation, 1979.

Jochims, Larry. "National Register Multiple Properties Nomination for Metal Truss Bridges in Kansas, 1861-1939." Topeka: Kansas State Historical Society, 1989.

North Carolina Department of Transportation, Bridge Maintenance Unit. *North Carolina Steel Truss Bridge Inventory*. Unpublished report, 1995.

Osborn, Rachel and Ruth Selden-Sturgill. *The Architectural Heritage of Chatham County, North Carolina*. Pittsboro, NC: Chatham County Historical Association, 1991.

The Sanford (N.C.) Herald. December 3, 1931.

Woolpert Consultants, "Preliminary Case Report for the Replacement of Chatham County Bridge No. 155 on State Route 2153 over the Deep River." Raleigh: North Carolina Department of Transportation, 1988.

United States Department of the Interior
National Park Service

**National Register of Historic Places
Continuation Sheet**

Section number 10 Page 8

Deep River Camelback Truss Bridge
Chatham and Lee counties, N.C.

Verbal Boundary Description:

The nominated property includes the footprint of the bridge and its concrete and steel approaches, and their supporting piers and abutments, a total of 364 feet long and fifteen and one-half feet wide.

Boundary Justification:

The nomination includes all of the historic steel truss structure with its deck and approaches.

United States Department of the Interior
National Park Service

**National Register of Historic Places
Continuation Sheet**

Photographs

Deep River Camelback Truss Bridge
Chatham and Lee counties, N.C.

Section number _____ Page 9

Photographs:

All photographs by Michael T. Southern, N.C. Division of Archives and History, July 1993. Negatives deposited at the Survey and Planning Branch, N.C. Division of Archives and History, Raleigh, N.C.

1. Overall view of bridge from east, taken from new bridge completed in 1992.
2. View of approach and portal from north.
3. Detail of trusses and bracing.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section number 7 & 8 Page 10

Deep River Camelback Truss Bridge
Chatham and Lee counties, N.C.

Correction

Four sections (narrative description, page 7.1; statement of significance summary, page 8.2, criteria exception discussion, page 8.3, and historical background, page 8.3) of the National Register nomination for the Deep River Camelback Truss Bridge in Chatham and Lee counties, listed 6/9/95, state that the bridge was originally erected about 1910 over Neal's Creek near Lillington in Harnett County and that it was disassembled and re-erected at the present site over the Deep River in 1932. Local historian John Hairr of Lillington, in a letter to North Carolina State Historic Preservation Officer William S. Price, Jr., dated 16 July 1995 and on file at the Survey and Planning Branch of the North Carolina State Historic Preservation Office, has provided proof that these statements are incorrect and should be revised as follows:

The camelback truss bridge was originally erected in 1901 as part of a multi-span bridge over the Cape Fear River at Lillington, about thirty miles to the southeast in Neal's Creek Township, Harnett County. After a span of the bridge collapsed in December 1930, the remaining spans were disassembled in order for a new bridge to be constructed at the site in 1931, and in 1932 one of the salvaged spans was re-erected at the present site over the Deep River.

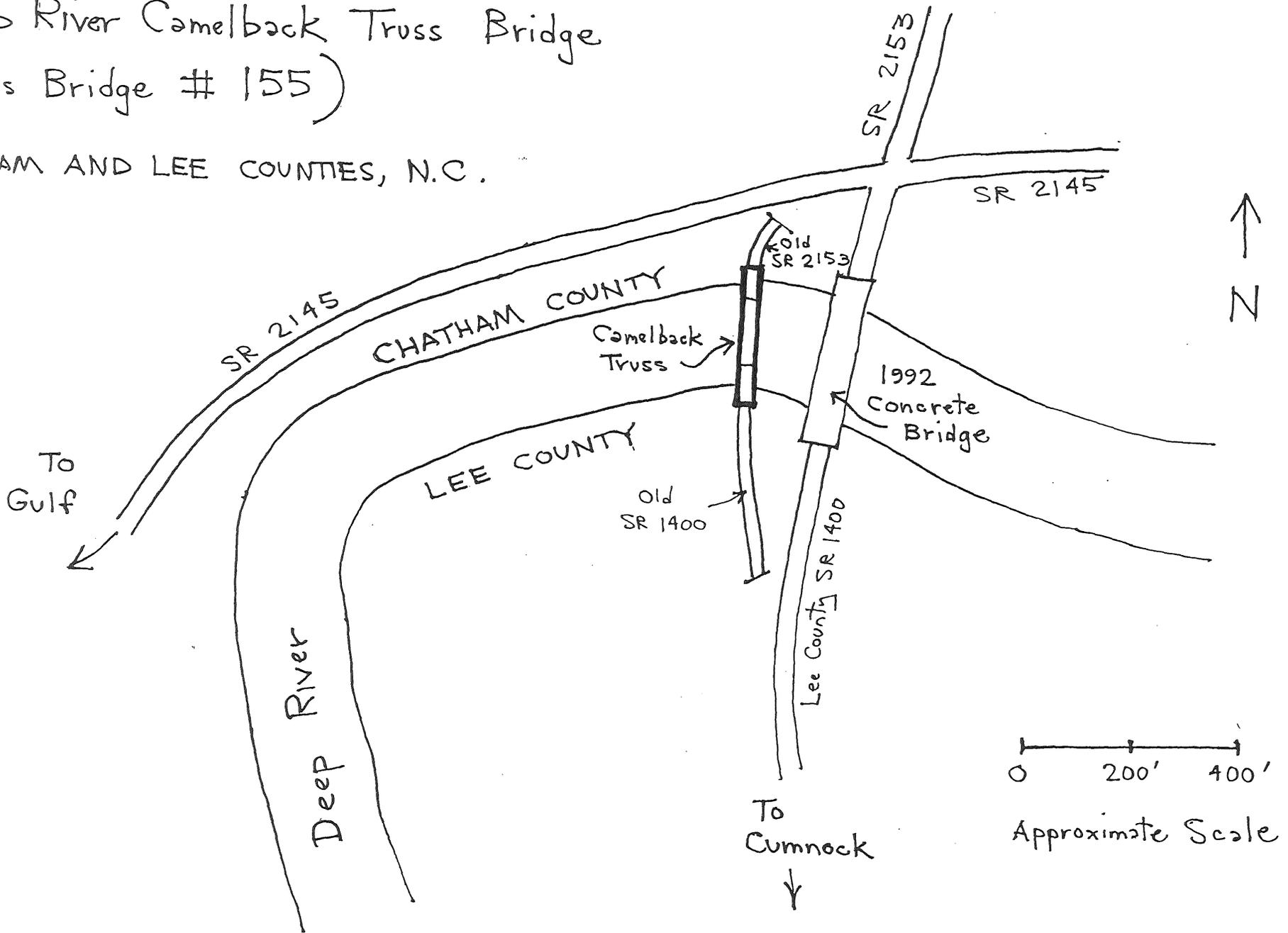
As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this nomination meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property meets the National Register criteria. I recommend that this property be considered significant locally.

Jeffrey J. Crow SHPO 2 Jan 96
Signature of certifying official/Title Date

State or Federal agency and bureau

Deep River Camelback Truss Bridge (Truss Bridge # 155)

CHATHAM AND LEE COUNTIES, N.C.

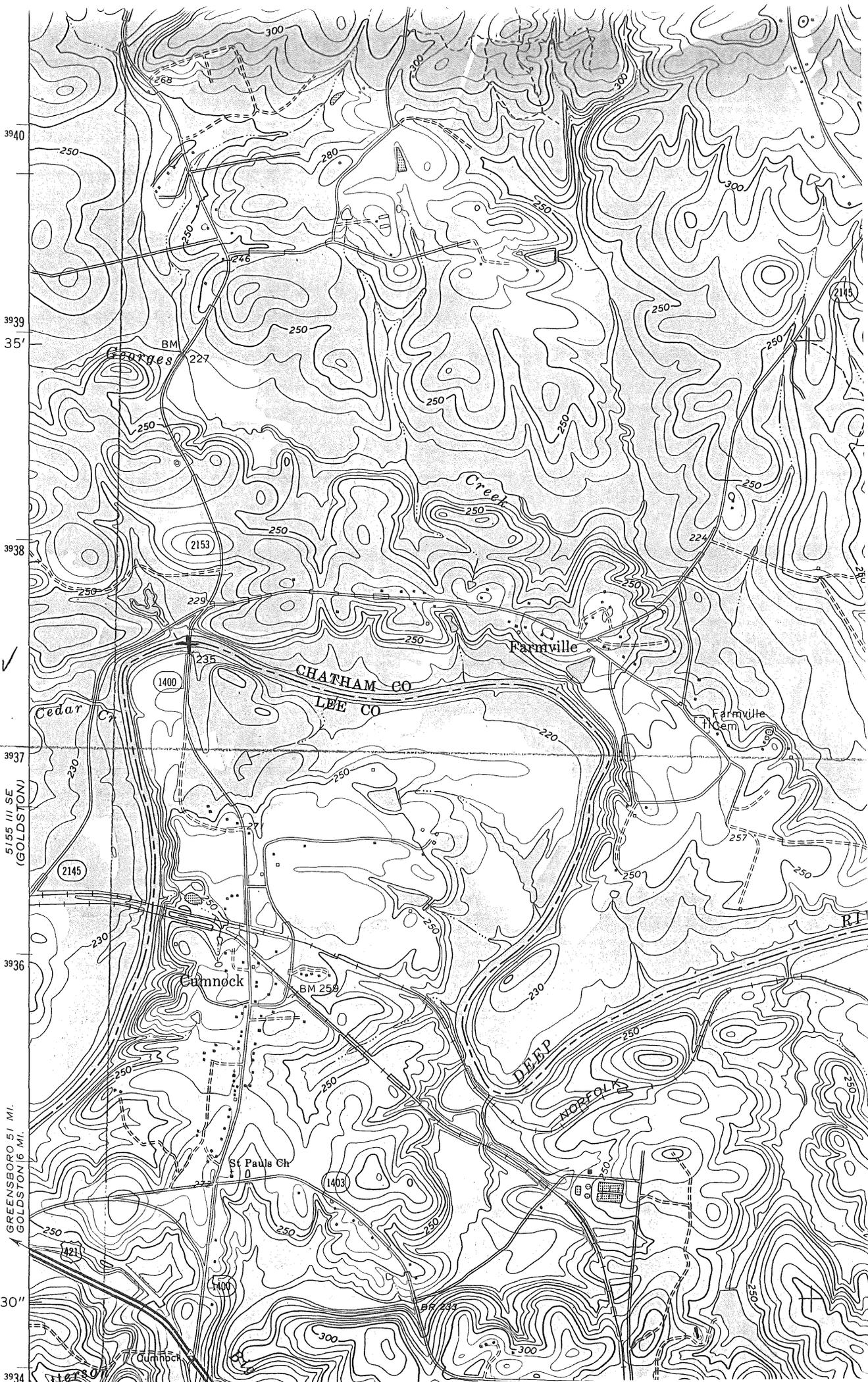


Deep River
Camelback Truss
Bridge.
Chatham and Lee
counties, NC

Zone 17 ✓
Northing
3937520

Easting
659340

Colon Quad



3940

3939

35'

3938

3937

3936

32'30"

3934

51.55 1/2 SE
(GOLDSTON)

GREENSBORO 51 MI.
GOLDSTON 16 MI.

