

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

**National Register of Historic Places
Continuation Sheet**

Section number _____ Page _____

SUPPLEMENTARY LISTING RECORD

NRIS Reference Number: 97000730

Date Listed: 7/15/97

Otowi Suspension Bridge
Property Name

Santa Fe
County

NM
State

Historic Highway Bridges of NM
Multiple Name

This property is listed in the National Register of Historic Places in accordance with the attached nomination documentation subject to the following exceptions, exclusions, or amendments, notwithstanding the National Park Service certification included in the nomination documentation.

Bob Boland
Signature of the Keeper

7/28/97
Date of Action

=====
Amended Items in Nomination:

Although the historic context in the cover documentation covers a period extending until 1965, the period of significance for this bridge is its date of construction. The period of significance is 1924. The only significant date is 1924 (not 1948). This was confirmed by Mary Ann Anders of the NM SHPO.

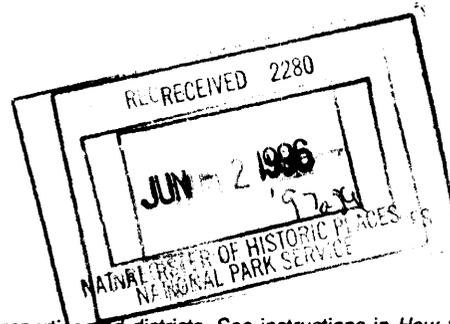
DISTRIBUTION:

- National Register property file**
- Nominating Authority (without nomination attachment)**

730

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 Otowi Suspension Bridge

other names/site number NMSHTD # 369

2. Location

street & number 25 yds. S of NM 502 at Rio Grande not for publication

city or town San Ildefonso Pueblo (CPO Santa Fe) vicinity

state New Mexico code NM county Santa Fe code 049 zip code 87501

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.)

Lyn Sebastian 3400 5-28-97
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:

- 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 the Keeper

Date of Action

_____	_____
_____	_____
_____	_____
_____	_____

Otowi Suspension Bridge
Name of Property

Santa Fe, NM
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	
0	0	buildings
0	0	sites
1	0	structures
0	0	objects
1	0	Total

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

Highway Bridge Construction in NM

Number of contributing resources previously listed in the National Register

1

6. Function or Use

Historic Functions
(Enter categories from instructions)

Transportation: road-related

Current Functions
(Enter categories from instructions)

Transportation: pedestrain-related

7. Description

Architectural Classification
(Enter categories from instructions)

Suspension

Materials
(Enter categories from instructions)

foundation concrete

walls wood

roof

other steel

Narrative Description

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

Otowi Suspension Bridge
Name of Property

Santa Fe, NM
County and State

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)

transportation

engineering

Period of Significance

1924-1965

Significant Dates

1924, 1948

Significant Person

(Complete if Criterion B is marked above)

Cultural Affiliation

Architect/Builder

Lee W. Campbell

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:

Otowi Suspension Bridge
Name of Property

Santa Fe, NM
County and State

10. Geographical Data

Acreage of Property less than one acre

UTM References

(Place additional UTM references on a continuation sheet.)

1

1	3	3	9	6	9	6	10	3	9	7	10	4	5	10
Zone			Easting					Northing						

3

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 David Kammer, Ph.D.

organization contract historian date Dec., 1996

street & number 521 Aliso Dr. NE telephone (505) 266-0586

city or town Albuquerque state NM zip code 87108

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 _____

street & number _____ telephone _____

city or town _____ state _____ zip code _____

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.

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National Park Service

National Register of Historic Places
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Section 7,8 Page 1

Otowi Suspension Bridge
Santa Fe County, NM

Description

The Otowi Suspension Bridge, located on the San Ildefonso Pueblo land just south of the current highway bridge crossing the Rio Grande on NM 502, is a single span suspension structure built in 1924 and fabricated, in part, by the Kansas City Structural Steel Company. The bridge is located just above the upper mouth of White Rock Canyon, at one of the few sites in the area where it is feasible to cross the Rio Grande, and the remains of a railroad bridge as well as the current highway bridge are located nearby.

The substructure consists of two pairs of reinforced concrete anchors set on driven piles. The superstructure consists of reinforced concrete towers measuring 21'3" in height from the lower concrete brace on which the deck rests to the top of the tower. A pair of 2.25" thick cable wires extend 283 feet from anchor bolt to anchor bolt. The span measures 174 feet. Each cable is attached to the timber stringers with 13 steel rod suspenders bolted to them. The deck is 10 feet wide and consists of 12"x3" timber and is flanked by timber felloes. A timber stiffening truss lines each side of the deck.

A contributing property in the Otowi Bridge Historic District, the bridge deteriorated after it was bypassed in 1948. In recent years, however, the NMSHTD rehabilitated the bridge, replacing timber elements and the cable caps topping the towers. A small suspension cable was also been added to the south side of the bridge to carry a 12" wide gasline pipe. The steel and concrete elements are original, and the rehabilitation project received an award in 1995 from HPD's Cultural Properties Review Committee. The bridge conveys a strong feeling of an early suspension bridge in New Mexico and retains a high degree of integrity of setting, design, materials, workmanship.

Statement of Significance

Included as a contributing property in the Otowi Bridge Historic District, the Otowi Suspension Bridge is historically significant for its long association with highway transportation in New Mexico dating to the first decades of statehood when its completion opened a large region of the state to automobile

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Section 8 Page 2

Otowi Suspension Bridge
Santa Fe County, NM

Statement of Significance (continued)

traffic. The only suspension bridge associated with a public highway remaining in New Mexico as well as the highest rated bridge in the bridge survey of 1987, the structure is significant for the ways in which it embodies the design, materials and methods of construction associated with that sub-type of bridge.

An important site for crossing the Rio Grande dating to prehistoric times when the San Ildefonso Indians referred to the site as Poh-sah-con-gay, or the "place where the river makes a noise," Otowi crossing was first spanned in 1886 when the Denver and Rio Grande Western Railroad constructed a steel trestle bridge. Later, automobiles used the railroad bridge as well, a practice common in New Mexico prior to the development of an extensive highway bridge system. By the 1910s and early 1920s, however, efforts to develop lands west of the Rio Grande prompted the highway department to make plans for constructing a highway bridge. In particular, efforts to open Bandelier National Monument to automobile tourism and the growth of the Los Alamos Boys' School, later the site selected by J. Robert Oppenheimer as the Los Alamos National Laboratory, rendered an automobile bridge a necessity.

Intrigued by the precedents of a few locally-constructed suspension bridges in New Mexico, State Engineer James A. French saw the economical design as offering a solution to the problem of periodic floodwaters scouring bridge piers and abutments. He selected Otowi as the site for the department's first suspension bridge, noting in his 1924 report that "this type will be used exclusively where long spans are required." French then appointed Lee W. Campbell as engineer in charge and contracted with the Kansas City Structural Steel Company to fabricate the bridge's steel elements. Although with French's death two years later the highway department completed only one other suspension bridge over the Rio Chama at Abiquiu, the Otowi Suspension Bridge fulfilled French's hopes, providing a structure relatively safe from flooding and one that opened a vast portion of the Parajito Plateau to automobile travel.

When the bridge was completed, the New Mexico State Highway Department treated it as a major achievement, featuring it on the

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Otowi Suspension Bridge
Santa Fe County, NM

Statement of Significance (continued)

cover of its magazine. Its 10-foot roadway and its untreated timber elements were prone to rapid weathering, however, and limited its effective life. By the 1940s, when the atomic bomb project at Los Alamos was underway, some of the bridge's elements had deteriorated to the degree that the heavy traffic bound for the laboratory was routed to the bridge over the Rio Grande at Espanola. In 1948, a steel through truss bridge, now demolished and superseded by a concrete beam bridge, replaced the suspension bridge.

Although the popular imagination tends to associate suspension bridges with the monumental structures spanning great waterways on the east and west coasts, the Otowi Suspension Bridge offers a striking appearance as it spans the Rio Grande. Its scale and proportions blend harmoniously with the low hills sloping down to the crossing site. Its combination of wood, concrete and steel materials creates an aesthetic uncommon in other bridge sub-types more limited in their variety of materials. It also serves as a reminder of engineers' efforts to find creative solutions to the problems of scouring and bridge destruction during seasonal flooding that confronted early bridge builders in New Mexico.

Bibliography

French, James A. "Report of the State Engineer of New Mexico: 1922-1923," p. 14.

McCachren, Michael P. "The Otowi Bridge Historic District," National Register of Historic Places Nomination. Santa Fe: State Historic Preservation Office, July, 2, 1975.

New Mexico State Highway Department. "Bridge Index, Bridge No. 369." October 8, 1940.

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Section 10 Page 4

Otowi Suspension Bridge
Santa Fe County, NM

Verbal Boundary Description

The property is a rectangular parcel measuring approximately 283 x 20 feet.

Boundary Justification

The boundary includes the bridge's substructure and its superstructure extending from anchor bolt to anchor bolt which comprise the historic bridge.