

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: 97000736

Date Listed: 7/15/97

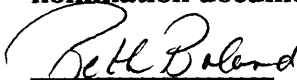
Variadero Bridge
Property Name

San Miguel
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.


Signature of the Keeper

7/22/97
Date of Action

=====
Amended Items in Nomination:

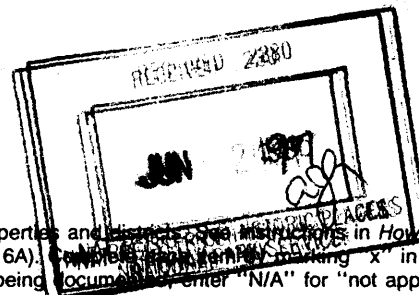
Although the historic context in the cover documentation covers a period extending until 1965, the period of significance for this bridge is its date of construction. The period of significance is ca. 1915. This was confirmed by Mary Ann Anders of the NM SHPO.

DISTRIBUTION:

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

United States Department of the Interior
National Park Service

National Register of Historic Places
Registration Form



1736

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 nominated, 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 Variadero Bridge

other names/site number NMSHTD # 3964

2. Location

street & number 100 yds. E of NM 104 over Rio Conchas at Variadero not for publication

city or town Variadero (Garita P.O.) vicinity

state New Mexico code NM county San Miguel code 047 zip code 88421

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.)

Ryan Sebastian SHPO 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:

Signature of the Keeper _____

Date of Action _____

- 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:) _____

Variadero Bridge
Name of Property

San Miguel, 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

N/A

6. Function or Use

Historic Functions
(Enter categories from instructions)

Transportation: road-related

Current Functions
(Enter categories from instructions)

Transportation: road-related

7. Description

Architectural Classification
(Enter categories from instructions)

Concrete pony truss

Materials
(Enter categories from instructions)

foundation concrete

walls concrete

roof

other

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)

transportation

engineering

Period of Significance

ca. 1915-1965

Significant Dates

ca. 1915

Significant Person

(Complete if Criterion B is marked above)

Cultural Affiliation

Architect/Builder

George E. Morrison

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:

Variadero Bridge
Name of Property

San Miguel, 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	5	4	9	1	1	0	3	9	1	6	1	5	0
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.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 7,8 Page 1

Variadero Bridge
San Miguel County, NM

Description

The Variadero Bridge, located on a former alignment of NM 104 over the Rio Conchas but now used only as a local road in the village of Variadero, was built in the late 1910s when San Miguel County undertook the construction of four concrete pony truss bridges. It was designed by George E. Morrison, a Las Vegas civil engineer, for the Missouri Valley Bridge and Iron Company, which constructed the bridge under contract for the county. The bridge is 200 feet long, and the concrete surfaced roadway is 15 feet wide. The substructure consists of three concrete piers varying in height from eight to 18 feet and two concrete abutments. The remains of a former wooden water gauging station are attached to the southern pier located in the middle of the waterway. Concrete slab retaining walls have been added upstream to stabilize the river banks.

The bridge deck consists of four reinforced concrete spans, each measuring fifty feet in length. Expansion joints are located on the deck above the first and third piers, and 4" concrete curbs flank the roadway. The superstructure consists of four panels of reinforced concrete pony trusses measuring 50 feet in length and five feet in height. 29" of the panel extend below the surface of the bridge deck and 31" above it. A 4"x6" concrete handrail is bolted to the truss panels. A metal plaque identifying the county commissioners and engineer is affixed to the southern endpost. Although some of the concrete has deteriorated, the bridge remains unaltered and retains a high degree of integrity of setting, design, materials, workmanship and association.

Statement of Significance

The Variadero Bridge is historically significant for its long association with highway transportation in New Mexico dating to the period of early statehood. It is also significant as one of the highest rated bridges in the bridge survey of 1987 and as one of two remaining examples of a concrete pony truss bridge in New Mexico, embodying the design, materials and methods of construction associated with that bridge sub-type.

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Section 8 Page 2

Variadero Bridge
San Miguel County, NM

Statement of Significance (continued)

The Variadero Bridge was built around 1915 as one of four bridges employing a similar design constructed under the auspices of the San Miguel County Commission. The first such bridge was undertaken in 1914, with the plans prepared by George E. Morrison, an engineer from New York who had overseen the preliminary work on the Williamsburg Bridge and moved to Las Vegas in 1908. Working under the direction of agents for the Missouri Valley Bridge and Iron Company of Leavenworth, Kansas, Morrison developed the bridge design, eventually applying for a patent for both the design and method of erecting it. The county then contracted with the bridge company to construct four such bridges, one in Las Vegas and three in rural areas.

Although the Rio Conchas drainage area experienced little traffic in the first two decades of the bridge's use, in the late 1930s the State Highway Department constructed a major state highway, NM 104, from Las Vegas to Tucumcari near the site of the Bureau of Reclamation's enormous Conchas Dam project. As a result of this work, traffic increased over Variadero Bridge in the late 1930s, and until 1966 when it was replaced, the bridge served as a vital link in one of central New Mexico's main east-west arteries.

The bridge is unique in that it represents the only known design sub-type developed in New Mexico by a local civil engineer. Typical of the experimentation with the relatively new material of reinforced concrete that marked much industrial construction during the first decades of this century, bridge builders introduced a range of new design types including the concrete rainbow arch and concrete arch bridges with open spandrels and arch ribs. George Morrison's plan involved improving the poor tensile strength of concrete by adding steel reinforcement rods to form pony truss panels. These panels were then cast as separate members on site and lifted into place, carrying floorbeams placed in slots provided in the truss posts. The reinforced concrete slab deck was then poured into forms hung from the floorbeams. This unusual design employing pre-cast construction is particularly striking at this isolated crossing of the Rio Conchas at Variadero.

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National Park Service

National Register of Historic Places
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Section 9,10 Page 3

Variadero Bridge
San Miguel County, NM

Bibliography

Morrison, George E. "A Reinforced-Concrete Truss Bridge, Las Vegas, New Mexico," Engineering News, Vol. 71, No. 23 (June 4, 1914), pp. 1232-1234.

New Mexico State Highway Department. "Bridge Index No. 3964." October 22, 1940.

Verbal Boundary Description

The property is a rectangular parcel measuring approximately 200 x 15 feet.

Boundary Justification

The boundary includes the bridge's substructure and its superstructure which comprise the historic bridge.