NPS Form 10-900
(3-82)

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United States Department of the Interior
National Park Service

National Register of Historic Places Inventory—Nomination Form

For NPS use only
received OCT 28 1983
date entered

See instructions in *How to Complete National Register Forms*
Type all entries—complete applicable sections

1. Name

historic Chevelon Creek Bridge

and/or common

2. Location

street & number ~~Carries a county road across~~ Chevelon Creek, ~~at a point approximately 12 miles southeast~~ SE of Winslow ~~N/A~~ not for publication

city, town Winslow vic. x vicinity of

state Arizona code 04 county Navajo code 017

3. Classification

Category	Ownership	Status	Present Use	
___ district	_x_ public	N/A occupied	___ agriculture	___ museum
___ building(s)	___ private	___ unoccupied	___ commercial	___ park
x structure	___ both	___ work in progress	___ educational	___ private residence
___ site	**Public Acquisition**	**Accessible**	___ entertainment	___ religious
___ object	N/A in process	___ yes: restricted	___ government	___ scientific
	___ being considered	x yes: unrestricted	___ industrial	x transportation
		___ no	___ military	___ other:

4. Owner of Property

name Navajo County

street & number Navajo County Courthouse

city, town Winslow x vicinity of state Arizona

5. Location of Legal Description

courthouse, registry of deeds, etc. Navajo County Courthouse

street & number

city, town Winslow state Arizona

6. Representation in Existing Surveys

title Arizona Historic Engineering Site Inventory has this property been determined eligible? ___ yes _x_ no

date 10/13/80 ___ federal _x_ state ___ county ___ local

depository for survey records Arizona State Historic Preservation Office, Phoenix, Arizona, and History of Engineering Program, Texas Tech University

city, town Lubbock state Texas

7. Description

Condition		Check one	Check one
___ excellent	___ deteriorated	_x_ unaltered	_x_ original site
_X_ good	___ ruins	___ altered	___ moved date _____
___ fair	___ unexposed		

Describe the present and original (if known) physical appearance

SUMMARY/CONTEXT

The Chevelon Creek Bridge is a 102', single span, steel Warren truss constructed in 1912-1913. The bridge, located twelve miles southeast of Winslow, Arizona in a sparsely settled area of Navajo County, crosses the 100' deep gorge of Chevelon Creek. The regional topography is relatively flat, averages 6,000' in elevation, and is broken by scattered mesas and canyons cut into the sedimentary bedrock. The isolated setting has not changed since the bridge was constructed, and due to the dry climate, the structure remains in sound condition. The only structural alteration was the installation of a new concrete deck in 1930.

PHYSICAL/STRUCTURAL DESCRIPTION

The Chevelon Creek Bridge is a Warren design, pony truss with a Camelback configuration. The overall span is 102' between the sandstone walls of the Chevelon Creek gorge. The bridge is 90' above the creek surface and springs from concrete abutments.

Structurally, the bridge is a Warren truss built entirely of riveted construction. The span consists of six panels including the inclined end panels. The polygonal top chord is made of riveted steel plates and is connected to the deck system and bottom chord by braced angle bars set diagonally to the vertical posts of the main panels.

The roadway deck, installed in 1930, is a concrete slab. It rests on steel I-beam stringers and deck beams. Diagonal wind bracing is integrated into the floor structure of each panel.

The overall width of the bridge measures 16'2" including exterior walkways on both sides. The roadway itself is 13'3" curb to curb. Webbed steel handrails are located on each side, interior to the main trusses.

INTEGRITY/USE

The Chevelon Creek Bridge possesses high integrity of location, setting, and original design. The steelwork has been continually maintained and painted as necessary. The physical setting of the Chevelon gorge and adjacent region remains little changed from the time the bridge was completed in 1913. The bridge serves an unpaved county road carrying light, local traffic. Despite some slight rusting of the end rollers, the bridge is in sound condition and is sufficient for 10 ton load capacity.

8. Significance

Period	Areas of Significance—Check and justify below				
___ prehistoric	___ archeology-prehistoric	___ community planning	___ landscape architecture	___ religion	
___ 1400–1499	___ archeology-historic	___ conservation	___ law	___ science	
___ 1500–1599	___ agriculture	___ economics	___ literature	___ sculpture	
___ 1600–1699	___ architecture	___ education	___ military	___ social/ humanitarian	
___ 1700–1799	___ art	___ engineering	___ music	___ theater	
___ 1800–1899	___ commerce	___ exploration/settlement	___ philosophy	___ transportation	
_X_ 1900–	___ communications	___ industry	___ politics/government	___ other (specify)	
		___ invention			

Specific dates 1912-1913 **Builder/Architect** Missouri Valley Bridge & Iron Company

Statement of Significance (in one paragraph)

SUMMARY

Constructed in 1912-1913, the Chevelon Creek Bridge is historically significant as a component of the initial state highway system and the first permanent roadway between the northern Arizona cities of Holbrook and Winslow.

HISTORICAL BACKGROUND/SIGNIFICANCE

The Chevelon Creek Bridge was built as a component of the initial highway system linking the West Coast with the remainder of the country. Within the southwest, the highway provided a direct, convenient access across the desert regions of northern Arizona linking California with the interior portions of the country.

Transportation routes across northern Arizona were first established by explorers and military excursions to the west during the mid-nineteenth century. These routes which generally followed the Little Colorado River in eastern portions of the state were later used by Territorial settlers.

With the settlement of the Arizona Territory and continued westward migration, the need for permanent transportation routes within and across the Territory increased. In 1909 the Arizona Territorial Legislature recognized the need for a road system and passed the Territorial Road Act with the intention of creating a road network within the Arizona Territory.

After Arizona achieved statehood in 1912, the new Legislature passed the State Road Law in June of 1912, further formalizing the creation of a highway system to connect the county seats and major towns in the state. This law established a state road fund and set up a formula for allocation of this fund to the various counties to assist the counties in building roads which would ultimately be part of a state highway system. The Chevelon Creek Bridge was financed by Navajo County utilizing an allocation from the State Road Fund.

In October of 1912 the Navajo County Board of Supervisors contracted with the Missouri Valley Bridge and Iron Company of Leavenworth, Kansas to construct the bridge. It was completed in July of 1913 at a cost of $4,985. A sum of $5,500 had been appropriated from the State Road Fund by the State Legislature.

The bridge was constructed to provide a direct link between Winslow and Holbrook and complete the Winslow-Holbrook Highway. Chevelon Creek presented a major topographic barrier on the direct route between the towns, and the bridge was essential to completion of the highway.

(See Continuation Sheet)

9. Major Bibliographical References

1. Arizona Department of Transportation. "Local Government Road System Print-Out". Phoenix: Arizona Department of Transportation, 1981.

2. Arizona, State of. Report of the State Engineer of the State of Arizona: July 1, 1909 to June 30, 1914. Phoenix: Arizona Board of Control, 1914, pp. 35,89-90, 116.

10. Geographical Data

Acreage of nominated property .10 of an acre

Quadrangle name Hibbard **Quadrangle scale** 1:24,000

UTM References

	Zone	Easting	Northing
A	12	543045	3864450
B	12	543100	3864410
C			
D			
E			
F			
G			
H			

Verbal boundary description and justification

The nominated boundaries for this site shall consist of a line, and all the area 10' on either side of a line, between Points A and B. This will create a rectangle 102' long and 20' wide. The structure lies within this rectangle.

List all states and counties for properties overlapping state or county boundaries

state	N/A	code	county	code
state	N/A	code	county	code

11. Form Prepared By

name/title Willard Rollings, Research Assistant / Revised, Roger Brevoort, Architectural Historian, AZ SHPO

organization History of Engineering Program, Texas Tech University **date** 7/22/81

street & number P.O. Box 4089 **telephone** (801) 742-3591

city or town Lubbock **state** Texas

12. State Historic Preservation Officer Certification

The evaluated significance of this property within the state is:

___ national X state ___ local

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

State Historic Preservation Officer signature Dennis J. Scholz

title State Historic Preservation Officer **date** October 25, 1983

For NPS use only

I hereby certify that this property is included in the National Register

date 12/8/83

Keeper of the National Register

Attest: **date**

Chief of Registration

The economic and political status of the cities of Holbrook and Winslow underscored the need for direct transportation access facilitated by the Chevelon Creek Bridge. Both cities evolved in the 1870's as trading centers for regional agriculture and livestock, and upon completion of the Santa Fe Railroad across northern Arizona in 1880, quickly emerged as important centers of railroad shipping and commerce. Also, Holbrook had been chosen as the county seat of Navajo County in 1897, furthering the need for an efficient transportation route between the towns to expedite governmental administration.

In a larger context, the early segments of the Arizona road network also constituted segments of a transcontinental highway linking California with the interior regions of the United States. The Winslow-Holbrook Highway helped complete a transportation route across northern Arizona, and this segment helped link the larger cities, Flagstaff, Arizona with Albuquerque, New Mexico, as well as provide western access to California.

The introduction of the automobile also mandated a permanent road system not dependent on water crossings. Early components of a transcontinental route within each state were influential to the twentieth century growth of the western United States. The automobile also initiated the growth of tourism, and by the 1920's, auto travel across Arizona had become an important facet of Arizona's emerging tourism industry. This roadway was not supplanted as the major route until Route 66 was paved in 1934.

ENGINEERING BACKGROUND AND CONTEXT

The Chevelon Creek Bridge was constructed by the Missouri Valley Bridge and Iron Company of Leavenworth, Kansas. This firm was prominent within the bridge industry at the time and built bridges throughout the western United States. Other bridges by the company are found in both California and Montana, evidencing their regional distribution and status.

The choice of a small metal truss bridge for this location was most likely dictated by its modest cost. However, in 1912 this type of structure would have been the most technologically expedient, as well as up-to-date structure for the site, given its isolated location and the steepness of the Chevelon gorge. The topographical constraints of the site would have made the construction of a concrete structure impractical, if not entirely infeasible. At the time the Chevelon Creek Bridge was built, concrete arch structures were also being constructed throughout the state.

A review of engineering survey data for bridges in Navajo County indicates this may be the earliest metal truss bridge erected in Navajo County, the only exception being the Little Colorado River Bridge outside Joseph City, a multiple span through truss also constructed in 1912-1913. The Chevelon Creek Bridge is the only small pony truss of its type in the county. As an example of early twentieth century metal truss bridge design, it is typical of a nationally common truss type from the early twentieth century, although other examples in Arizona are rare.

PREV LISTED

HABS/HAER INVENTORY

See "HABS/HAER Inventory Guidelines" before filling out this card.

1. NAME(S) OF STRUCTURE
Chevelon Creek Bridge ADOT: 8158

2. LOCATION
Holbrook-Winslow Road over Chevelon Creek
10.2 miles southeast of Winslow; SE1/4 S29 T18N R17E
Navajo County, Arizona

3. DATE(S) OF CONSTRUCTION
1912-13

4. USE (ORIGINAL/CURRENT)
highway bridge / roadway bridge

5. RATING
individually listed, NRHP: state significance

6. CONDITION
good; sufficiency rating: 64.5 owner: Navajo County

7. DESCRIPTION

span number : 1
span length : 100.0'
total length: 103.0'
roadway wdt.: 13.3'

superstructure: riveted steel, 12-panel Warren pony truss w/ polygonal top chord and verticals at alternate panel points
substructure : concrete abutments and wingwalls
floor/decking : concrete deck over steel stringers
other features: upper chord: 2 channels w/ cover plate and webbing; lower chord: 2 angles w/ batten plates; vertical: 2 angles w/ webbing; diagonal: 4 angles w/ batten plates; floor beam: I beam; lateral bracing; 1 angle; steel lattice guardrails

8. HISTORICAL DATA

The deep, rocky canyon over Chevelon Creek cut across the Coconino Plateau east of Winslow, forming a "practically impassible" topographic barrier to the Santa Fe Highway. At the request of Navajo County in 1911, Arizona Territorial Engineer J.B. Girand inspected the existing county-built, pin-connected Pratt truss as part of the highway's reconnaissance. The next year, the new state legislature appropriated $5500 from the State Road Fund for construction of a replacement structure. State Engineer Lamar Cobb designated a long-span pony truss for the crossing, and on October 1, 1912, the state contracted with the Missouri Valley Bridge and Iron Company of Leavenworth, Kansas, to pour the foundations and design, fabricate and erect the truss. Missouri Valley began construction late in 1912, pouring the 7 cubic yards of concrete for the abutments. In January, the state approved the truss design, and by the end of June 1913, the construction was 80% complete. The state accepted the completed bridge the following month. Total cost: $4985. The Chevelon Creek Bridge carried highway traffic until a realignment in 1934 relegated it to county road status.

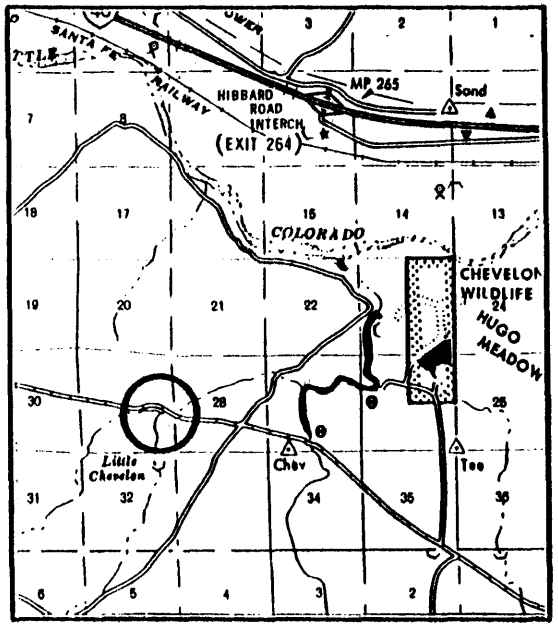
9. SIGNIFICANCE

As an important crossing on the Santa Fe Highway (later U.S. 66), the Chevelon Creek Bridge formed an integral part of one of America's primary transcontinental routes. The bridge is even more significant, however, as one of the first highway structures undertaken by the newly formed State of Arizona. This structure represented the second truss replacement project in Arizona, preceded only by the Florence Bridge, since razed, over the Gila River. It was the first truss built by the state - designed, fabricated and erected by a national bridge company. As such, the bridge more closely resembled the earlier county-built bridges than the highway structures to follow. Exceeded in an age and span length by only one other pony truss in the inventory (the Hereford Bridge (9214): 1912, 102'), the Chevelon Creek Bridge is one of Arizona's most historically and technologically important vehicular spans. It was individually listed on the National Register in 1983.

10. NAME(S) OF STRUCTURE

Chevelon Creek Bridge

11. PHOTOS (W/ FILM ROLL & FRAME NO.) AND SKETCH MAP OF LOCATION



LOCATION MAP
TAKEN FROM DEPARTMENT OF TRANSPORTATION
GENERAL HIGHWAY MAP

12. SOURCES

Bridge Record, Arizona City Streets and County Roads: 8158; Structures Section, Arizona Department of Transportation, Phoenix AZ.

Report of the State Engineer of Arizona, 1909-1914 (Phoenix: Arizona State Press, 1914), pages 35, 70, 89, 116-17.

Proceedings of the Navajo County Board of Supervisors: 20 November 1911 (Book 3, page 255); 2 January 1912 (Book 3, page 263).

Field inspection by Clayton Fraser, 8 October 1986.

13. INVENTORIED BY:	**AFFILIATION**	**DATE**
Clayton B. Fraser	Fraserdesign Loveland Colorado	1 April 1987