

HISTORIC BRIDGE INVENTORY

Canyon Diablo Bridge

PROPERTY IDENTIFICATION

county	Coconino	inventory number	private
milepost	0.00	inventory route	abd. US 66
location	at Two Guns	feature intersected	Canyon Diablo
city/vicinity	Two Guns	USGS quadrangle	Meteor Crater
district	85	UTM reference	12.491290.3885865

STRUCTURAL INFORMATION

main span number	1	main span type	111
appr. span number	0	appr. span type	
degree of skew	0	guardrail type	0
main span length	128.0	superstructure	concrete filled spandrel Luten arch
structure length	146.0	substructure	concrete abutments and wingwalls
roadway width	16.0	floor/decking	concrete deck over earth fill
structure width	18.0	other features	paneled concrete parapet wall (upstream); pierced concrete parapet wall (downstream); plain, tapered cantilever brackets

HISTORICAL INFORMATION

construction date	1915	designer/engineer	Topeka Bridge & Iron Company
project number		builder/contractor	Topeka Bridge & Iron Company, Topeka KS
information source	ADOT bridge records	structure owner	private
alteration date(s)		alterations	

NATIONAL REGISTER EVALUATION

inventory score	79	For additional information, see "Vehicular Bridges in Arizona 1880-1964" National Register Multiple Property Documentation Form	
		NRHP eligibility	listed
		NRHP criteria	A <input checked="" type="checkbox"/> B <input type="checkbox"/> C <input checked="" type="checkbox"/>
		signif. statement	well-preserved, long-span example of uncommon structural type, located on important route

FORM COMPLETED BY

Clayton B. Fraser, Principal

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Loveland, Colorado 80537
31 October 2004

CANYON DIABLO BRIDGE

Structure No. private



PHOTO INFORMATION

date of photo: November 2002

view direction: south northwest

photo no.: 02.11.143 02.11.148

CONSTRUCTION HISTORY

Canyon Diablo historically formed a barrier to the Atchison Topeka & Santa Fe Railroad, delaying its construction progress across northern Arizona in 1881 as the track-building crew waited for timbers to build a trestle here. The Santa Fe Highway, which loosely followed the railroad, also encountered this rocky chasm just west of Two Guns in Coconino County. In 1914 Arizona State Engineer Lamar Cobb selected and surveyed the site for a bridge over the canyon and purchased plans and specifications for a long-span concrete arch from the Topeka Bridge & Iron Company of Kansas for \$500. Topeka designed a standard 128-foot Luten arch similar to the one the company had completed over Canyon Padre earlier that year.

Like the Canyon Padre structure [**abd.**], the Canyon Diablo bridge featured a 16-foot-wide roadway that cantilevered over the arch's spandrels on both sides. The arch sprang from concrete abutments and featured Luten's trademark elliptical profile. The volatile nature of the watercourse was illustrated by the concrete parapet walls; the downstream wall was pierced with slots, while the upstream wall was solid to protect the roadway from floodwaters. Late in 1914 the state engineer's office let the construction contract to the lowest bidder, Thomas Maddock of Williams, Arizona, for \$9,000. Using concrete and reinforcing steel supplied by the state, Maddock built the Canyon Diablo Bridge that winter. It was opened to traffic on March 17, 1915. Maddock himself later succeeded Cobb as the Arizona State Engineer. The Canyon Diablo Bridge and the adjacent roadway carried mainline traffic until the highway was rerouted in the 1930s. The bridge now stands abandoned in unaltered condition.

SIGNIFICANCE STATEMENT

The Canyon Diablo Bridge is historically noteworthy for its association with US 66. Alternately known as the Santa Fe Highway (in Arizona) and the National Old Trails Highway (its national designation), the road has served historically as the principal east-west transcontinental route across northern Arizona. Only the Ocean-to-Ocean Highway, which passed through Yuma, Phoenix and Safford, carried more traffic in the state. Built in the 1910s when the highway was in its formative stage, the Canyon Diablo Bridge was an integral part of this significant route. Technologically, the bridge is distinguished as the second Luten arch built in Arizona, predated only a year by the Canyon Padre Bridge. The State of Arizona built long-span Luten arches at several major river crossings in the 1910s, before this patented structural type fell from favor with civil engineers. Though now abandoned, the Canyon Diablo Bridge is an important early example of vehicular bridge construction in Arizona using a proprietary design.

NATIONAL REGISTER EVALUATION

TECHNOLOGICAL SIGNIFICANCE

- represents the work of a master
- possesses high artistic values
- represents a type, period or method of construction

HISTORICAL SIGNIFICANCE

- associated with significant persons
- associated with significant events or patterns
- contributes to historical district

NATIONAL REGISTER CRITERIA

- Criterion A
- Criterion B
- Criterion C

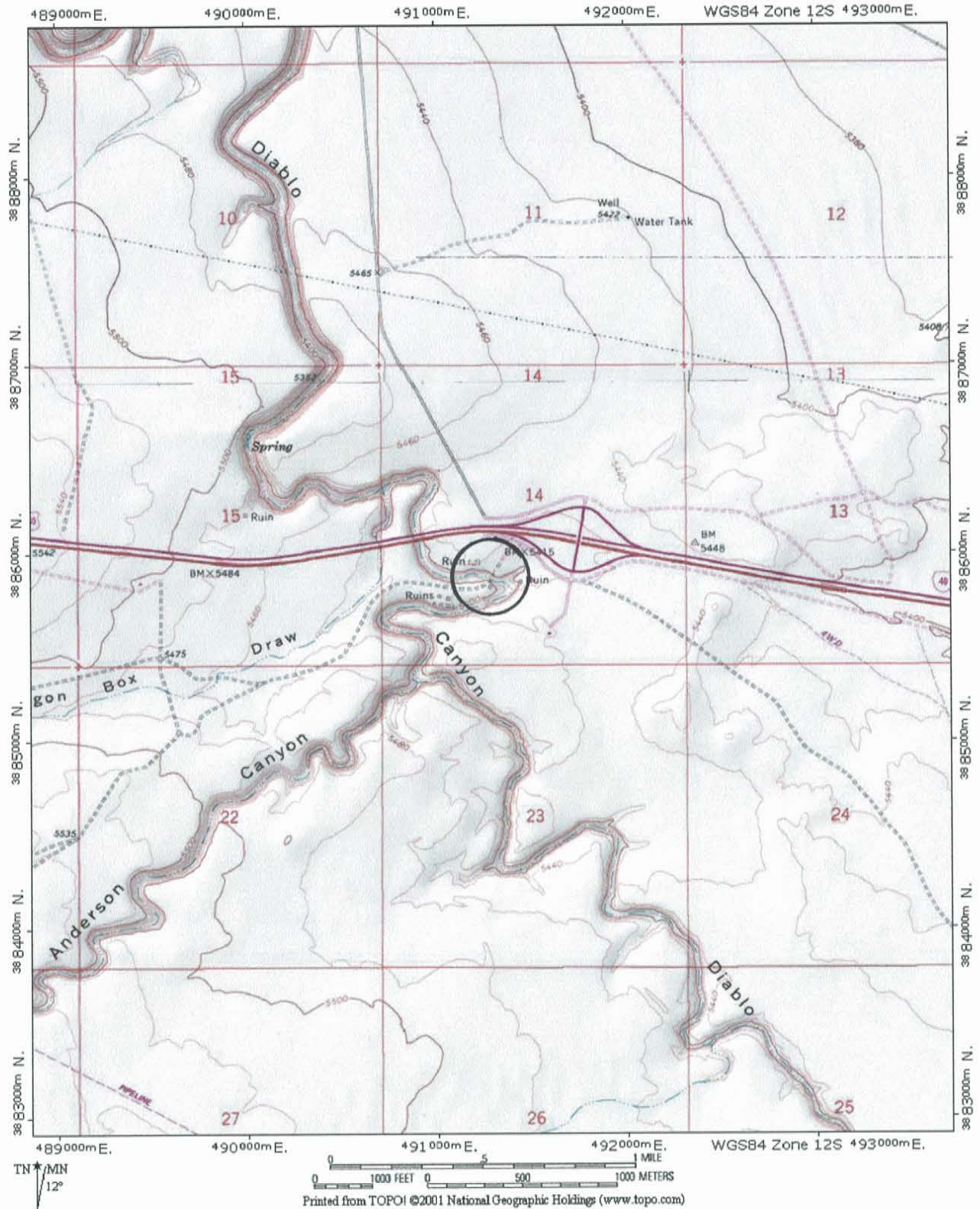
NATIONAL REGISTER ELIGIBILITY

- individually eligible yes no
- contributes to district yes no

AREA OF SIGNIFICANCE: Transportation; Engineering
 PERIOD OF SIGNIFICANCE: 1915-1964
 THEME(S): Transportation: Highways

CANYON DIABLO BRIDGE

Structure No. private



Location Map