Form No. 10-306 (Rev. 10-74)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

FOR FEDERAL PROPERTIES

FOR NPS USE ONLY
RECEIVED JUN 26 1984
DATE ENTERED 8

SEE INSTRUCTIONS IN *HOW TO COMPLETE NATIONAL REGISTER FORMS*
TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS

1 NAME

HISTORIC
Beaver Creek Bridge

AND/OR COMMON
N/A

LOCATION

STREET & NUMBER
Wind Cave National Park ~~HWY~~ SD 87, N/A NOT FOR PUBLICATION

CITY, TOWN
Hot Springs vic., ~~X~~ VICINITY OF

CONGRESSIONAL DISTRICT
Second

STATE	CODE	COUNTY	CODE
South Dakota	46	Custer	047

CLASSIFICATION

CATEGORY	OWNERSHIP	STATUS	PRESENT USE	
__DISTRICT	X PUBLIC	__OCCUPIED	__AGRICULTURE	__MUSEUM
__BUILDING(S)	__PRIVATE	N/A 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	__TRANSPORTATION
		__NO	__MILITARY	X OTHER Bridge

AGENCY

REGIONAL HEADQUARTERS: *(If applicable)*
National Park Service

STREET & NUMBER
655 Parfet

CITY, TOWN
Denver ~~N/A~~ VICINITY OF

STATE
Colorado

LOCATION OF LEGAL DESCRIPTION

COURTHOUSE, REGISTRY OF DEEDS, ETC.
Wind Cave National Park

STREET & NUMBER
N/A

CITY, TOWN
Custer

STATE
South Dakota

6 REPRESENTATION IN EXISTING SURVEYS

TITLE	DATE	
List of Classified Structures Inventory	1975	X FEDERAL __STATE __COUNTY __LOCAL
Federal Highway Administration Bridge Safety Inspection Report--1977		

DEPOSITORY FOR SURVEY RECORDS
National Park Service

CITY, TOWN
Denver

STATE
Colorado

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

The Beaver Creek Bridge is on Route 87 which winds through Wind Cave National Park. The bridge spans Beaver Creek which is north of the administrative headquarters area.

A steel reinforced concrete bridge, the Beaver Creek Bridge is comprised of two parallel arches which carry the 20 support struts of the deck. The arches end in two main piers, which rest on the rock walls of the ravine. The deck itself curves in a gentle S.

The arch spans 120 feet and rises 115 feet above the ravine floor. The north end of the bridge has a 20-foot approach which curves 60° to the northwest. A 40° curve connects the 23-foot southern approach. The square struts, which rest on the arch, end in four arched supports. The north and south supports form an arched spandrel, while the east and west supports protrude slightly beyond the edge of the deck. A handrail or quardrail runs along the edge of the deck. The rail and deck are, in part, cantilevered out from the main support piers.

The 1977 Bridge Safety Inspection Report considers the conditions of the bridge to be good.

The boundary for the bridge includes only the northern 20-foot approach, the 120-foot long bridge, and the 23-foot southern approach. The adjoining road, Route 87, is not considered part of the engineering significance.

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	X ENGINEERING	__MUSIC	__THEATER
__1800-1899	__COMMERCE	__EXPLORATION/SETTLEMENT	__PHILOSOPHY	__TRANSPORTATION
X 1900-	__COMMUNICATIONS	__INDUSTRY	__POLITICS/GOVERNMENT	__OTHER (SPECIFY)
		__INVENTION		

SPECIFIC DATES 1929 BUILDER/ARCHITECT Morris E. Adelstein
J.A. Linder

STATEMENT OF SIGNIFICANCE

Beaver Creek Bridge is the largest and most complex reinforced concrete bridge of its size in the state. There were no concrete bridges of this design, size, and complexity until the 1960s in South Dakota. Among the recorded bridges it is unique, and is, therefore, highly significant as an engineering site at the state level under Criteria C.

Concrete arch bridge construction was developed around 1900. Masonry arch bridges had had a long history, but improvements in concrete technology led to this significant development. In South Dakota concrete was used in bridge construction from c 1900 on. Two large cement plants in the state, including the Western Portland Cement Company, founded in 1891, produced most of the cement. The earliest use in bridge building was as a foundations, footings, and pilings for the metal truss spans, which were used extensively between 1905 and 1920. The truss bridges were used to span large expanses such as the Missouri River and shorter spaces such as secondary roads over the James River. In the 1930s concrete was used for small bridges all across the state. Small arch, bowstring, and cast post-and-lintel type bridges were built with Federal assistance. Most were built on secondary roads, spanning creek ditches and shallow ravines. Freeway construction in the 1960s expanded concrete bridge technology into large, complex structures.

Construction engineer, Morris E. Adelstein, faced a difficult site and found an elegant solution. The bridge not only spans a deep, rugged ravine, but curves in a "S" shape to connect with the road on either side. Adelstein's bridge was in keeping with the Park Service's philosophy of complimentary and unobstrusive design. A civil engineer who worked with the Northwest Engineering Company in nearby Rapid City, Adelstein was one of the earliest registered engineers and land surveyors in South Dakota.

The bridge has two metal plaques enscribed with the following "Beaver Creek Bridge; 1929. Commissions; Governor W.J. Bulow, Chairman, J.B. Johnson, V.J. Clarke , J.T. Bates; J.H. Lake, Dist. Engr., J.H. Hamilton, Bridge Engr. J.M. Brown, Highway Engr.; Built by Northwestern Engineering Co., Rapid City, South Dakota, Morris E. Adelstein, Const. Engr., J.A. Linder, Supt. of Const.; W.L. Gulliams, D.V. Rusk, Inspectors."

9 MAJOR BIBLIOGRAPHICAL REFERENCES

"Bridge Safety Inspection Report," Federal Highway Inventory Report," 1977.

Olivieri, Lance J. "Classified Structures Field Inventory Report," 1975, updated 1975, 1981.

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY less than one acre

UTM REFERENCES

	ZONE	EASTING	NORTHING
A	13	622020	4826600
B			
C			
D			

VERBAL BOUNDARY DESCRIPTION

The bridge structure and the northern and southern approaches form the boundary. The boundary begins at the 20-foot approach on the north end, includes the 120-foot bridge, and ends 23 feet further south at the beginning of the southern approach.

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE	CODE	COUNTY	CODE
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

11 FORM PREPARED BY

NAME / TITLE

Carolyn Torma

ORGANIZATION

Historical Preservation Center

DATE

June 23, 1982

STREET & NUMBER

University of South Dakota

TELEPHONE

(605) 677-5314

CITY OR TOWN

Vermillion

STATE

South Dakota

12 CERTIFICATION OF NOMINATION

STATE HISTORIC PRESERVATION OFFICER RECOMMENDATION

YES ✓ NO ___ NONE ___

STATE HISTORIC PRESERVATION OFFICER SIGNATURE

In compliance with Executive Order 11593, I hereby nominate this property to the National Register, certifying that the State Historic Preservation Officer has been allowed 90 days in which to present the nomination to the State Review Board and to evaluate its significance. The evaluated level of significance is ___National ___State ___Local.

FEDERAL REPRESENTATIVE SIGNATURE Edwin C Bearss

TITLE Chief Historian DATE June 19, 1984

FOR NPS USE ONLY

I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

Beth Grosvenor DATE 8/8/84

for DIRECTOR, OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION

ATTEST: DATE

KEEPER OF THE NATIONAL REGISTER

NPS Form 10-900
(Rev. 10-90)

OMB No. 1024-0018

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
REGISTRATION FORM

==========

1. Name of Property

==========

historic name Beaver Creek Bridge

other names/site number HS-99

==========

2. Location

==========

street & number Wind Cave National Park, SD Hwy 87, 0.5 miles north of jct with Hwy 385
not for publication ___
city or town Hot Springs **vicinity** X
state South Dakota **code** SD **county** Custer **code** 033 **zip code** 57747-9430

==========

3. State/Federal Agency Certification

==========

As the designated authority under the National Historic Preservation Act of 1986, as amended, I hereby certify that this __X_ nomination **(amendment)** ____ 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 __X_ meets ____ does not meet the National Register Criteria. I recommend that this property be considered significant ___ nationally _X_ statewide ___ locally. (___ See continuation sheet for additional comments.)

Barry Mackintosh — 2/21/95

Federal Preservation Officer (certifying official) Date

National Park Service
Federal agency

In my opinion, the property ✓ meets ____ does not meet the National Register criteria. (___ See continuation sheet for additional comments.)

[signature] — 1-26-95

Signature of commenting official Date

South Dakota State Historic Preservation Office
State agency

4. National Park Service Certification

I, hereby certify that this 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): Additional documentation accepted

for Gary M. Lapsley 3/24/95
Signature of Keeper Date of Action

5. Classification

Ownership of Property

___ private
___ public-local
___ public-State
X public-Federal

Category of Property

___ building(s)
___ district
___ site
X structure
___ object

Number of Resources within Property

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

Number of contributing resources previously listed in the National Register 1

Name of related multiple property listing Wind Cave National Park Multiple Property Submission

6. Function or Use

Historic Functions
Cat: TRANSPORTATION/road-related Sub: Bridge

Current Functions
Cat: TRANSPORTATION/road-related Sub: Bridge

7. Description

Architectural Classification:
Other: open spandrel concrete arch bridge

Materials
foundation: CONCRETE
roof: N/A
walls: N/A
other: ASPHALT

Narrative Description
(See continuation sheet)

8. Statement of Significance

Applicable National Register Criteria

X **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.
X **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

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

Beaver Creek Bridge, Wind Cave National Park, Custer County, SD

Areas of Significance: ENGINEERING; POLITICS/GOVERNMENT; TRANSPORTATION

Period of Significance: 1929-1945

Significant Dates: 1929

Significant Person: N/A

Cultural Affiliation: N/A

Architect/Builder: J. Harper Hamilton (engineer)/South Dakota State Highway Commission

Narrative Statement of Significance
(See continuation sheet)

==========

9. Major Bibliographical References

Hamilton, J. Harper
1930a "The Beaver Creek Bridge." South Dakota Highway Magazine (Jan.) 5(1):4-5.
1930b "The Beaver Creek Bridge." The Black Hills Engineer 18(1):136-141.

National Archives
Master Plans with Narratives. Architectural and Cartographic Branch, RG 79.

National Park Service
Original plans, specifications and correspondence maintained by the National Park Service Technical Information Center, Denver.

Wind Cave National Park Property Files, generated in 1946 and updated periodically, Wind Cave National Park and Denver.

Olivieri, Lance J. Field Inventory. 1975.
1975 "Wind Cave National Park Field Inventory." Denver: National Park Service.

Torma, Carolyn
1982 "Wind Cave National Register of Historic Places Nomination Form." Denver: National Park Service.

Traeger, Jennifer and Wayne Rosby
1990 "Historic Bridges in South Dakota, National Register of Historic Places Multiple Property Listing." Denver: National Park Service.

Beaver Creek Bridge, Wind Cave National Park, Custer County, SD

==========

Previous documentation on file (NPS)

___ preliminary determination of individual listing (36 CFR 67) has been requested.
X previously listed in the National Register (8/8/84)
___ 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
X Federal agency
___ Local government
___ University
___ Other

Name of repository: National Park Service, Rocky Mountain Region, Denver, CO

==========

10. Geographical Data

==========

Acreage of Property less than 1 acre

UTM References

Zone	Easting	Northing
13	622010	4826580

Township, Range, Section: T5S R5E, Sec 26

Verbal Boundary Description: The bridge structure and the northern and southern approaches from the boundary. The boundary begins at the 20 foot approach on the north end, includes the 120 foot bridge and end 23 feet further south at the beginning of the southern approach.

Boundary Justification: Because the bridge is located on a public road, there are no legal boundary lines for the ends of the bridge. Therefore, these boundaries are drawn to encompass only the superstructure and substructure of the bridge itself. The adjoining road, Route 87, is not considered part of the engineering significance.

==========

11. Form Prepared By

==========

name/title Ken Karsmizki
organization Western History Research **date** 2/1994
street & number 409 West Harrison **telephone** 406-587-2478
city Bozeman **state** MT **zip code** 59715

==========

Property Owner

==========

name Wind Cave National Park
street & number RR1, Box 190-WCNP **telephone** 605-745-4600
city or town Hot Springs **state** SD **zip code** 57747-9430

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Section number 7 Page 1

Beaver Creek Bridge, Wind Cave National Park, Custer County, SD

Narrative Description

Summary:
Built in 1929, the Beaver Creek Bridge is located on SD Highway 87 approximately a half mile from the junction of US Highway 385 and SD Highway 87. The bridge spans Beaver Creek Canyon, and the deck of the bridge is roughly 115 feet above the canyon floor.

Setting:
This bridge is a 225' linear feature which runs approximately north-south. The structure spans the Beaver Creek canyon the floor of which is roughly 115 feet below the bridge deck. Beaver Creek canyon is a wooded ravine with a small stream, Beaver Creek, meandering through the bottom. The canyon, or ravine, has steep sides with numerous rock outcroppings. A heavy stand of ponderosa pine is found on the upper margins of the canyon with boxelder, cottonwood, elm and other deciduous trees found in the canyon bottom. The highway is a sinuous two lane paved thoroughfare.

Description:
The open spandrel deck arch bridge has one main span with a steel stringer approach span at each end. The 120 foot main span sits on concrete piers. In addition to the main span there are two steel stringer approach spans, with outer concrete girders, at each end. The approach spans sit on the main span's pier, a concrete pier, and a solid abutment with curved wing walls. The single arch span of this bridge is a two-ribbed open spandrel arch. The ribs are connected with concrete bridging. The arches spring from the bottom of massive concrete piers. Ten concrete columns rest on each rib and support the concrete floor beams. Between the floor beams are longitudinal concrete stringers. The beams are cantilevered to carry the concrete deck and balustrade. The beams and stringers turn down at the columns to form decorative, ribbed column capitals. The approach spans are similar in configuration but the distance between the piers and abutment is greater than between the columns and main span. The approach spans have steel I-beam stringers which are supported by the concrete floor beams. The approach spans of both ends of the bridge curve; the south span curves to the right, and the north span curves to the left. The railing is a concrete balustrade with a panel between each vertical support (Traeger and Rosby 1990:6).

The road surface is 20 feet wide, the north end uses "two twenty-foot long approach spans on a sixty-degree curve to the right while the south end reaches to land by means of three twenty foot approach spans on a forty degree curve to the left" (Hamilton 1930: 137).

Narrative Description (continued)

Historical Information:

The Beaver Creek Bridge was designed by J. Harper Hamilton, the State Bridge Engineer for South Dakota. Morris E. Adelstein was the construction engineer for Northwestern Engineering Company. It was built by Northwestern Engineering Company, with Jack Linder serving as foreman on the project. The cost of the bridge was $25,000.

An article on "The Beaver Creek Bridge" written by J. Harper Hamilton, State Bridge Engineer, says that this bridge was part of the development of the State Game Park. Included in the planning of this bridge were J. Harper Hamilton, Park Superintendent Robertson, and C.E. Smith Engineer for the Park Board. In Hamilton's article on the bridge he notes that the "two arch ribs are thirty-two inches square at the crown and thirty-two inches wide by six feet deep at the springing lines" (1930:137). A part of the design has the arches "well embedded in the solid rock of the canyon sides" and it was explained that this was done more for the aesthetic of having the bridge arch appear to rise out of solid rock rather than have a visible junction of the concrete bridge arch and the natural stone wall.

(The following information is taken from Hamilton's article.) The falsework was constructed from timbers obtained locally. They were pine logs varying in length from twenty-four to fifty feet. They were lowered by means of the cable of a hoist carried out on a trolley line which was anchored into both sides of the canyon. The trolley line was a three-quarter inch plow steel cable held in the sides of the canyon by means of concrete dead men, three feet square and three feet deep, in which were imbedded eyes made of one inch steel. Many of the individual logs handled by this means weighed several tons.

The falsework logs were held in place by one and three quarter inch steel dowels which were set into solid rock and driven into the bottom of each log about eighteen inches. The logs wherever possible were set in a true vertical plane. The tops were cut off square and another dowel placed in the upper end, this latter dowel projecting up into the log above. The falsework was braced and cross braced by means of three by twelve bridge planks bolted in place. All bolts used were three quarters of an inch in diameter with malleable washers. These bolts facilitated the dismantling of the falsework and the removal of the planks with a minimum of damage to the lumber. All forms were made of selected lumber, chosen long before needed. In order to avoid warping they were oiled immediately after being built and kept under cover until needed in the construction.

Narrative Description (continued)
There were no available roads for crossing the canyon on account of the steepness of its walls and its great depth, and since it was necessary to travel twelve miles to get from one side of the canyon to the other, it was desirable that two separate mixing plants be placed on the project so that the pouring of concrete in the ribs could proceed from both sides simultaneously.

The specifications called for the arch ribs to be poured in one continuous operation and this required some of the work to be done at night. A temporary lighting system which worked satisfactorily, was arranged by the use of the old fashioned gasoline torches seen so often around circuses during their night shows. As the concrete was placed on the falsework, careful observations were made to determine the occurrence of any settlement. No settlement of any kind was noted.

An average crew of twenty men started the construction of this bridge on June 15th, 1929, and completed the last panel of handrail on November 15th of the same year. The quantities involved in this structure were principally four hundred and forty cubic yards of concrete and sixty-four thousand pounds of steel (Hamilton 1930:140).

This bridge was inventoried in 1975 by Lance J. Olivieri of the National Park Service, in 1977 in a Federal Highway Administration Bridge Safety Inspection Report, in 1982 by Carolyn Torma of the South Dakota Historical Preservation Center, and again in 1990 by Jennifer Traeger and Wayne Rosby of Renewable Technologies, Inc., Butte, Montana. In 1984 the bridge was listed on the National Register of Historic Places. In 1990 the Beaver Creek Bridge was included in the Historic Bridges in South Dakota multiple property listing.

In the original National Register nomination for the bridge, Morris E. Adelstein, was identified as the designer of the bridge. Documentation now indicates that Hamilton was the designer.

INTEGRITY STATEMENT: The integrity for the Beaver Creek Bridge is good. The 1990 inventory by Traeger and Rosby suggested the integrity was excellent at that time and there has been virtually no change. The Federal Highway Administration Bridge Safety Inspection Report indicated that there were numerous locations where the concrete was spalling but in terms of the integrity of the structure, this spalling is not significant. The only change in the bridge is resurfacing of the deck. This resurfacing had caused a "noticeable" rise in the road surface by approximately eight inches. In 1992 maintenance work included removing the built-up asphalt. This project added life to the bridge by removing several tons of

Narrative Description (continued)
dead weight.

STATEMENT OF SIGNIFICANCE:
The Beaver Creek Bridge was previously listed as significant only under Criterion C for its engineering qualities. This amended submission documents that it is also significant under Criterion A for it association with politics/government and transportation. The Beaver Creek Bridge is significant at the state level under Criterion A for its association with the development of Wind Cave National Park. Wind Cave National Park was created in 1903 in an effort to protect it as an important natural feature, to make this resource more accessible, and to interpret the resource to a visiting public. At the time the bridge was built it was seen as providing an important transportation link between Wind Cave National Park to the south and the newly developing Custer State Park to the north. The Beaver Creek Bridge was made possible as a result of the efforts of South Dakota's Senator Peter Norbeck. Senator Norbeck was the guiding force behind the creation and development of Custer State Park and the scenic highways within the park and the general vicinity.

The Beaver Creek Bridge is also significant at the state level under Criterion C due to its engineering significance. It has been identified as the only example of an open spandrel concrete arch bridge built in South Dakota (Rosby 1990). It is considered to be one of the three most significant bridges within the NPS' Rocky Mountain Region (Olivieri 1975). It has also been called the largest and most complex reinforced concrete bridge [of its type] in the state. There were no concrete bridges of this design, size, and complexity until the 1960s in South Dakota. Among the recorded bridges it is unique, and is, therefore, highly significant as a engineering site at the state level under Criterion C. The period of significance extends from 1929, the bridge's date of construction, to 1945, the end of the historic period as defined by the National Register.

Concrete arch bridge construction was developed around 1900. Masonry arch bridges had a long history, but improvements in concrete technology led to this significant development. In South Dakota concrete was used in bridge construction from c 1900 on. Two large cement plants in the state, including the Western Portland Cement Company, founded in 1891, produced most of the cement. The earliest use in bridge building was as foundations, footings, and pilings for the metal truss spans, which were used extensively between 1905 and 1920. The truss bridges were used to span large expanses such as the Missouri River and shorter spaces such as secondary roads over the James River. In the 1930s concrete was used for small bridges all across the state. Small arch, bowstring, and cast

Narrative Description (continued)
post-and-lintel type bridges were built with Federal assistance. Most were built on secondary roads, spanning creek ditches and shallow ravines. Freeway construction in the 1960s expanded concrete bridge technology into large, complex structures.

Bridge engineer, J. H. Hamilton, faced a difficult site and found an elegant solution. The bridge not only spans a deep, rugged ravine, but curves in a "S" shape to connect with the road on either side. Hamilton's bridge was in keeping with the Park Service's philosophy of complimentary and unobtrusive design. Morris E. Adelstein, a civil engineer who worked with the Northwest Engineering Company in nearby Rapid City, was one of the earliest registered engineers and land surveyors in South Dakota. Adelstein was the construction engineer on the Beaver Creek Bridge project.

The bridge has two metal plaques inscribed with the following "Beaver Creek Bridge; 1929. Commissions; Governor W. J. Bulow, Chairman, J.B. Johnson, V.J. Clarke, J.T. Bates; J.H. Lake, Dist. Engr., J.H. Hamilton, Bridge Engr., J.M. Brown, Highway Engr.; Built by Northwestern Engineering Co., Rapid City, South Dakota, Morris E. Adelstein, Const. Engr., J.A. Linder, Supt. of Const.; W.L. Gulliams, D.V. Rusk, Inspectors." (Torma 1982; Hamilton 1930a; Hamilton 1930b).

The Beaver Creek Bridge was reevaluated under three historic contexts contained in the Wind Cave National Park Multiple Property Submission (MPS): Recreation and Tourism in the Black Hills and at Wind Cave, 1890-1945; Development and Administration of Wind Cave National Park, 1903-1945; and National Park Service Rustic Architecture and Public Works Construction, 1933-1942. (For additional contextual information, refer to the MPS.)

NPS Form 10-900
(Rev. 10-90)

OMB No. 1024-0018

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Photo List Page 6

Beaver Creek Bridge, Wind Cave National Park, Custer County, SD

Photo List:

Photo #	View	Comments	Roll	Frame
01	SW	bridge overview	01	19
03	S	west side of bridge at road level	07	16
07	S	under bridge, through columns	07	20
09	S	east side of bridge, below road level	07	22
10	S	bridge road surface, from above	07	23
11	NW	overview	07	24
12	SE	overview, approximately road level	13	20
18	NW	overview from distance	15	07
19	W	overview, below road level	15	08
23	S-SW	base of arches	15	12
24	S	road surface of bridge from above	15	13

Wind Cave National Park
Historic Buildings and Structures Survey 1992

Property: Beaver Creek Bridge, Wind Cave, S. Dak. 1957 (photorevised 1979) and Pringle, S. Dak. 1956 (photorevised 1979) 7.5 minute USGS Quads.