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: 95000344 Date Listed: 4/7/95  

Property Name: Pig Tail Bridge  
County: Custer State: South Dakota  

Wind Cave National Park MPS  
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.  

Cathy McKoy, Historian for the Rocky Mountain Regional Office, was notified of this amendment on April 7, 1995.  

DISTRIBUTION:  
National Register property file  
Nominating Authority (without nomination attachment)
1. Name of Property  
   historic name  Pig Tail Bridge  
   other names/site number  HS-98

2. Location  
   street & number  Wind Cave National Park, SD Hwy 87, North of Norbeck Lake  
   city or town  Hot Springs  
   state  South Dakota  
   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 ___ 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 ___ statewide _X_ locally. ( ___ See continuation sheet for additional comments.)

   Federal Preservation Officer (certifying official)  
   National Park Service  
   Federal agency

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

   Signature of commenting official  
   South Dakota State Historic Preservation Office  
   State agency
Pig Tail Bridge, Wind Cave National Park, Custer County, SD

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): ____________

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

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1 Total

Number of contributing resources previously listed in the National Register 0

Name of related multiple property listing Wind Cave National Park Multiple Property Submission
Pig Tail Bridge, Wind Cave National Park, Custer County, SD

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: Rustic

Materials
   foundation: CONCRETE; SANDSTONE
   roof: N/A
   walls: N/A
   other: WOOD: log, laminated wooden deck; ASPHALT

Additional Materials
   foundation: STONE: sandstone; METAL: steel

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
colleto 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.
Pig Tail Bridge, Wind Cave National Park, Custer County, SD

Areas of Significance: POLITICS/GOVERNMENT; TRANSPORTATION; ENGINEERING

Period of Significance: c. 1930-1945

Significant Dates: c. 1930-1943

Significant Person: N/A

Cultural Affiliation: N/A

Architect/Builder: South Dakota Highway Department

Narrative Statement of Significance
(See continuation sheet)

9. Major Bibliographical References

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.

Torma, Carolyn

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
X Federal agency
__ Local government
__ University
__ Other

Name of repository: National Park Service, Rocky Mountain Region, CO
10. Geographical Data

Acreage of Property less than 1 acre

UTM References (Place additional UTM references on a continuation sheet)

Zone  Easting   Northing
13    621560    4828470

Township, Range, Section: T5S R5E, Sec 23

Verbal Boundary Description: The nominated property consists of a rectangle, 28 feet wide by 160 feet long, whose vertices coincide with the outside corners of the bridge abutments at each end of the bridge, and includes only the bridge superstructure and substructure.

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.

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
Narrative Description

Summary:
Probably constructed ca. 1930 and reconstructed or modified in 1940, the Pig Tail Bridge was built as part of the development of SD Highway 87, which included the construction of the Beaver Creek Bridge. The bridge spans Highway 87 which, after crossing the bridge, makes a 360 degree loop and comes back under the bridge on the approach to Reaves Gulch.

Setting:
This bridge is a linear feature with a 160 foot deck which runs approximately north-south. The structure spans a ravine through which the road is built. After the road crosses the bridge it makes a 360 degree loop and passes back under the bridge and down the ravine. The ravine is a densely wooded area which includes both ponderosa pine and a variety of deciduous trees. After passing under the bridge the road descends to Reaves Gulch. The road is a sinuous two lane asphalt highway in both directions from the bridge.

Description of Structure:
The bridge is a post and lintel design consisting of a single span of 160 feet long. It has an asphalt covered laminated wooden deck which rests on steel I-beams. The I-beams sit on concrete and stone masonry abutments. There is one abutment at each end of the bridge and two additional abutments, 40 feet apart, on each side of the roadbed which passes beneath the bridge. The end abutments have short wing walls on each side. The abutments have concrete bases which are poured on outcrops of native rock. Battered abutments use native sandstone in a coursed ashlar pattern with rock facing. Each abutment has a concrete cap. The date "1940" is cast in the center inside of the northern and southern abutments. Log uprights are regularly spaced along the outside edge of the deck and two logs, one above the other, are bolted to the uprights forming a guardrail. The guardrail extends beyond each end of the bridge serving as a guardrail for the approach. This extended guardrail is on the east side at the south end of the bridge and on the west side at the north end of the bridge.

Historical Information:
In an article on "Highways in Custer State Park" it was noted that the "Beaver Canyon Bridge . . . is conceded to be the most beautiful structure in the State, and the pig-tail bridge and the scenic windings of Reaves Gulch add to the interest of the route" (Robertson 1930:136). This suggests the pig tail bridge may have been originally constructed by 1930 (possibly by the South Dakota Highway Department), and was either modified or reconstructed in 1940 by the Civilian Conservation Corps.
Pig Tail Bridge, Wind Cave National Park, Custer County, SD

Narrative Description (continued)
The "Pig Tail Bridge" on SD Highway 87 was determined to not be a true pig tail bridge when considered by a 1990 South Dakota Historic Bridge Inventory. The rationale was that the bridge was a single span and the road beyond the bridge makes a 360 degree turn coming back under the bridge. In other examples the bridge itself curves. As a part of this 1990 South Dakota Inventory, it was noted that there were at least five similar pig tail bridges built in the Black Hills. According to the report, these bridges were built in 1930 and were rebuilt in the 1930s, using steel I-beams and laminated timber decks. In some cases they were rebuilt again in the 1970s (Rosby 1990).

MODIFICATIONS:
It is believed that "I" beams and a laminated timber deck replaced the original structural elements in 1940 when the concrete caps were added to the stone abutments. Some of the log guardrails were replaced in 1990 after being damaged by a truck accident. These changes did not result in a major change in the appearance of the bridge.

INTEGRITY STATEMENT:
The Pig Tail Bridge was previously determined ineligible for listing on the National Register by the South Dakota State Historic Preservation Officer (April 10 1984). The decision was based on the belief that the bridge had been substantially altered; it is now thought that a photograph of a different bridge was used for comparison, and that the bridge retains its historic design.

The original structure may have had log stringers and a wooden deck. Within ten years of the original construction, the stone abutments were finished with concrete caps, steel "I" beams replaced the original members, and a laminated wooden deck was added. These alterations were completed in 1940. The bridge retains integrity from the 1940 reconstruction period and is an excellent example of a bridge executed according to NPS rustic design principles.
STATEMENT OF SIGNIFICANCE:
The Pig Tail Bridge is locally significant under Criterion A due to 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 built in 1929 and the Pig Tail Bridge served to extend the road into the Reaves Gulch area. These bridges and the connecting road between the two parks were 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 bridge is also locally significant under Criterion C as a good example of rustic design principles applied by NPS engineers. Structures designed using National Park Service Rustic Architecture principals "besides being attractive to look upon, . . . appear to belong to and be a part of their settings" (Cammerer 1935). The precepts of the rustic style of architecture dominated park planning for nearly 30 years, 1918 to the late 1930s. The style and philosophy emphasized the connection between landscape and architecture by incorporating "natural" materials such as native stone, log, and timber in the design. Use of natural materials helped to assure that the buildings and structures were harmonious with the surrounding landscape and terrain. A fundamental idea was the subordination of the structure to the environment and landscaping played a key role in carrying out this principal. Careful placement of structures and planned landscaping became an integral part of the architectural design and structures were screened by natural and man-made landscaping materials. Consideration for scale and perspective was also part of the park design. Structures were designed for each individual park that would conform to the wilderness character of the area. As a result there are stylistically adapted designs for specific environments with a focus on materials, scale, and placement appropriate for each location (Simmons and Simmons 1992).

The Pig Tail Bridge was evaluated 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.) The period of significance dates from ca. 1930, the bridge’s estimated date of construction, to 1945, the end of the historic period as defined by the National Register.
Pig Tail Bridge, Wind Cave National Park, Custer County, SD

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Wind Cave National Park
Historic Buildings and Structures Survey 1992

Property: Pig Tail Bridge, Wind Cave, S. Dak. 1957 (photorevised 1979) and Pringle, S. Dak. 1956 (photorevised 1979) 7.5 minute USGS Quads.
Pig Tail Bridge
Wind Cave National Park
Custer Co. , South Dakota
photo # 1
Pig Tail Bridge
Wind Cave National Park
Custer Co., South Dakota
Photos by
Pig Tail Bridge
Wind Cave National Park
Custer Co., South Dakota
Photo #4
Pig Tail Bridge
Wind Cave National Park
Custer Co., South Dakota
Photos #5
Pig Tail Bridge
Wind Cave National Park
Custer Co., South Dakota
Plate 7
Pig Tail Bridge
Wind Cave National Park
Custer Co., South Dakota
Photo #9