### **United States Department of the Interior**National Park Service

## National Register of Historic Places Continuation Sheet

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#### SUPPLEMENTARY LISTING RECORD

NRIS Reference Number: see below Date Listed: 12/09/93

Property Name: see below

County: see below State: South Dakota

Historic Bridges in South Dakota MPS

Multiple Name

The following properties are 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

December 9, 1993
Date of Action

Amended Items in Nomination:

Section 3/8. State Certification/Statement of Significance. Certifying official has considered the significance of the following properties to be of <u>state</u> significance.

Reference No. Property County

93001295 93001287 93001308 93001298 93001317 93001274 93001264 93001266 93001277 93001268	Capa Bridge Chilson Bridge Eighth Street Bridge Esmond Bridge Hall Bridge Hay Creek Bridge Kemp Avenue Bridge Larson Bridge Minnesela Bridge Old Cochrane Bridge	Jones County Fall River County Minnehaha County Kingsbury County Spink County Butte County Codington County Codington County Butte County Deuel County
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93001269	South 100	Dakota Dept. of Transportation Bridge No. 03-338- Beadle County
93001260		Dakota Dept. of Transportation Bridge No. 03-020- Beadle County
93001261	South 230	Dakota Dept. of Transportation Bridge No. 03-327-Beadle County
93001270	South 200	Dakota Dept. of Transportation Bridge No. 05-028- Bon Homme county
93001271	South 170	Dakota Dept. of Transportation Bridge No. 05-032- Bon Homme County
93001272	South 080	Dakota Dept. of Transportation Bridge No. 05-138- Bon Homme County
93001273	South	Dakota Dept. of Transportation Bridge No. 05-255- Bon Homme County
93001276	South 355	Dakota Dept. of Transportation Bridge No. 10-112- Butte County
93001275	South 360	Dakota Dept. of Transportation Bridge No. 10-109- Butte County
93001278	South 230	Dakota Dept. of Transportation Bridge No. 12-503- Charles Mix County
93001265	South	Dakota Dept. of Transportation Bridge No. 15-210- Codington County
93001279	South 054	Dakota Dept. of Transportation Bridge No. 16-570- Carson County
93001280	South 107	Dakota Dept. of Transportation Bridge No. 17-289- Custer County
93001282	South	Dakota Dept. of Transportation Bridge No. 18-040- Davison County
93001283	South 202	Dakota Dept. of Transportation Bridge No. 18-060- Davison County
93001284	South 052	Dakota Dept. of Transportation Bridge No. 18-100- Davison County
93001285	South 150	Dakota Dept. of Transportation Bridge No. 18-142- Davison County
93001286	South 210	Dakota Dept. of Transportation Bridge No. 20-153- Deuel County
93001288	South 141	Dakota Dept. of Transportation Bridge No. 25-218- Faulk County
93001262	South 142	Dakota Dept. of Transportation Bridge No. 25-380- Faulk County
93001289	South 201	Dakota Dept. of Transportation Bridge No. 27-000- Gregory County
93001290	South 298	Dakota Dept. of Transportation Bridge No. 27-060- Gregory County

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93001291	South 060	Dakota Dept. of Transportation Bridge No. 29-221- Hamlin County
93001292		Dakota Dept. of Transportation Bridge No. 29-279- Hamlin County
93001293		Dakota Dept. of Transportation Bridge No. 30-257- Hand County
93001294	South 110	Dakota Dept. of Transportation Bridge No. 31-115- Hanson County
93001297	South 070	Dakota Dept. of Transportation Bridge No. 39-006- Kingsbury County
93001299	South 100	Dakota Dept. of Transportation Bridge No. 39-176- Kingsbury County
93001301	220	Dakota Dept. of Transportation Bridge No. 44-028- McCook County
93001302	090	Dakota Dept. of Transportation Bridge No. 44-212-McCook County
93001303	363	Dakota Dept. of Transportation Bridge No. 47-215- Meade County
93001263	389	Dakota Dept. of Transportation Bridge No. 47-151- Meade County
93001305	204	Dakota Dept. of Transportation Bridge No. 48-244- Melette County
93001306	190	Dakota Dept. of Transportation Bridge No. 49-095- Miner County
93001267	South 035	Dakota Dept. of Transportation Bridge No. 50-200- Minnehaha County
93001310	South 096	Dakota Dept. of Transportation Bridge No. 56-090- Sanborn County
93001312	South 090	Dakota Dept. of Transportation Bridge No. 56-174- Sanborn County
93001311	South 123	Dakota Dept. of Transportation Bridge No. 56-117- Sanborn County
93001313	South 376	Dakota Dept. of Transportation Bridge No. 58-010- Spink County
93001314	South 400	Dakota Dept. of Transportation Bridge No. 58-021- Spink County
93001315	South 370	Dakota Dept. of Transportation Bridge No. 58-025- Spink County
93001316	270	Dakota Dept. of Transportation Bridge No. 58-062- Spink County
93001318	231	Dakota Dept. of Transportation Bridge No. 58-120- Spink County
63001319	South 224	Dakota Dept. of Transportation Bridge No. 58-140- Spink County

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63001320	South Dakota Dept. of Transportation Bridge No. 58-218-360 Spink County
63001321	South Dakota Dept. of Transportation Bridge No. 62-220-512 Tripp County
63001322	South Dakota Dept. of Transportation Bridge No. 64-061-199 Union County
93001309	Split Rock Park Bridge Minnehaha County
93001304	Stamford Bridge Miner County
93001307	Summit Avenue Viaduct Minnehaha County
93001296	Van Metre Bridge Jones County

#### Section 8: Applicable Criteria

93001266 Larson Bridge Codington County

Criterion C should be checked and not A to be consistent with bridge's significance in engineering for its method of construction.

#### Section 8: Period of Significance

93001266 Larson Bridge Codington County

Period of significance is amended to read "1917" to indicate date of construction and to be consistent with significance in engineering.

93001281 Red Shirt Bridge Custer County

Period of significance is amended to read "1943-1944" to cover the period of construction.

93001278 South Dakota Dept. of Transportation Bridge No. 12-503-230 Faulk County

Due to typographical error, period of significance is corrected to read " 1920-1943."

93001265 South Dakota Dept. of Transportation Bridge No. 15-210-136 Codington County

Period of significance is amended to read "1917" since significance is under criterion C in engineering and the date of construction should be entered.

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93001262 South Dakota Dept. of Transportation Bridge No. 25-380-142 Faulk County

Period of significance is amended to read "1902" because the area of significance is engineering and the period of significance should be based on the date of construction. The bridge was moved from its original site in 1955.

#### Section 8: Date of Significance

93001308 Eighth Street Bridge Minnehaha County

"1977" is deleted because the date lies outside the period of significance.

93001317 Hall Bridge Spink County

"1904" is deleted because bridge is significant under criterion C for engineering and the move in 1904 falls outside the period of significance which is based on the date of construction and does not appear to have particular importance.

93001286 South Dakota Dept. of Transportation Bridge No. 20-153-210 Deuel County

"1960" is deleted because the date lies outside the period of significance.

93001262 South Dakota Dept. of Transportation Bridge No. 25-380-142 Faulk County

"1955" is deleted because the date lies outside the period of significance.

93001302 South Dakota Dept. of Transportation Bridge No. 44-212-090 McCook County

"1960" is deleted because the date lies outside the period of significance.

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93001267	South Dakota Dept. of Transportation Bridge No. 50-200 035 Minnehaha County
	5" is deleted because the date lies outside the period significance which is based on the date of construction.
93001311	South Dakota Dept. of Transportation Bridge No. 56-117
of s	05" is deleted because the date lies outside the period significance and does not appear to have particular ortance.

Melissa Dirr, architectural historian, of the South Dakota State Historic Preservation Office was notified of the above-mentioned amendments by telephone on December 09, 1993.

#### DISTRIBUTION:

National Register property file Nominating Authority (without nomination attachment)

OMB No. 1024-0018 NPS Form 10-900 (Rev. 8-86) United States Department of the Interior RECEIVED National Park Service NATIONAL REGISTER OF HISTORIC PLACES OCT 25 1993 REGISTRATION FORM REGISTER 1. Name of Property historic name: N/A other name/site number: South Dakota Dept. of Trans. Br. No. 58-010-376 2. Location \_\_\_\_\_\_\_\_ street & number: Local road over Wolf Creek not for publication: city/town: Tulare vicinity: X state: SD county: Spink code:115 zip code: 57476 3. Classification \_\_\_\_\_\_\_ Ownership of Property: public-local Category of Property: structure Number of Resources within Property: Contributing Noncontributing \_\_ buildings \_\_\_\_ sites \_ structures \_\_ objects Total Number of contributing resources previously listed in the National Register: \_\_0\_\_ Name of related multiple property listing: Historic Bridges in South

Dakota

4. State/Federal Agency Certification	
As the designated authority under the Na of 1986, as amended, I hereby certify the request for determination of eligibility standards for registering properties in Historic Places and meets the procedural set forth in 36 CFR Part 60. In my opin does not meet the National Register sheet.  Signature of certifying official  Signature of certifying official	tional Historic Preservation Act at this nomination meets the documentation the National Register of and professional requirements ion, the property meets
In my opinion, the property meets _ Register criteria See continuation	does not meet the National sheet.
Signature of commenting or other officia	l Date
State or Federal agency and bureau	
5. National Park Service Certification	
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):	LAMMUland 12/9/
- Concr (explain).	Signature of Keeper Date of Action

USDI/NPS	NRHP Registration Form	Brid	ge No.	58-010-	-376 Page 3
6. Function	on or Use		=====		
Historic:	Transportation	Sub:	road-	related	(vehicular)
Current :	Transportation	Sub:	road-	related	(vehicular)
-		-			
7. Descrip	ption 	=====	=====		
Other	ural Classification:				
Other Des	cription: <u>Bedstead pony truss</u>	<u> </u>			
Materials	foundation concrete roof walls othe		al: st	<u>eel</u>	
Describe parts the parts of the	present and historic physical	appe	arance	x_ s	See continuation

8. Statement of Significance
Certifying official has considered the significance of this property in relation to other properties:
Applicable National Register Criteria: A & C
Criteria Considerations (Exceptions) :
Areas of Significance: Politics/Government Engineering
Period(s) of Significance: 1920 - 1943
Significant Dates : 1920
Significant Person(s): $N/A$
Cultural Affiliation: N/A
Architect/Builder: Designer: State Highway Commission Builder: Iowa Bridge Company
State significance of property, and justify criteria, criteria considerations, and areas and periods of significance noted above.  _X_ See continuation sheet.
9. Major Bibliographical References
_X_ See continuation sheet.
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 #

Organization: Renewable Technologies, Inc.

Street & Number: 510 Metals Bank Bldg.

City or Town: Butte

Date: August 1990/9-93

State: MT ZIP: 59701

Telephone: (406)782-0494

Primary Location of Additional Data: State historic preservation office  $\overline{x}$  Other state agency \_ Federal agency \_ Local government \_ University Other -- Specify Repository: South Dakota Department of Transportation \_\_\_\_\_\_\_ 10. Geographical Data Acreage of Property: less than 1 acre UTM References: Zone Easting Northing Zone Easting Northing A 14 524840 4949280 B \_\_\_\_ D See continuation sheet. Verbal Boundary Description: See continuation sheet. The nominated property consists of a rectangle, 23 feet wide by 73 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: See continuation sheet. 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: Jennifer Traeger/Historian and Fred Quivik/Architectural <u>Historian</u>

NPS Form 10-900-a (8-86)

OMB Approval No. 1024-0018

United States Department of the Interior National Park Service

NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

Section number 7 Bridge No. 58-010-376 Page 6

Bridge no. 58-010-376 is located 9 miles west and 2.5 miles south of Tulare and carries a local road over Wolf Creek. The 66-foot, steel, riveted, Bedstead pony truss span rests on concrete abutments. The wing walls rise to form L-shaped approach guards and also have recessed panels. The superstructure is comprised as follows: the end posts are H-sections built up of a steel plate web and pairs of angle sections with an additional steel plate on the outer flanges; the upper chords are paired angle sections with a riveted continuous channel section cover plate; the lower chords are paired angle sections with battens; vertical and diagonal members are paired angle sections. The concrete slab deck rests on the steel I-beam floor beams which are riveted to the vertical members. Side stiffening brackets are angle sections riveted to the center vertical members above the lower chords. Bottom lateral bracing consists of angle section cross-braces spanning two panels. Railings are one channel section.

The bridge retains excellent integrity.

OMB Approval No. 1024-0018

NPS Form 10-900-a (8-86)

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NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

Section number 8 Bridge No. 58-010-376 Page 7

Bridge no. 58-010-376 is being nominated to the National Register of Historic Places as part of the "Historic Bridges in South Dakota" Multiple Property Nomination. It is related to the historic context of "Historic Bridges in South Dakota, 1893-1942" and is classified with the associated property type for iron and steel frame bridges. This bridge is individually eligible for the National Register under Criterion A for its association with the early designs of the South Dakota State Highway Commission (SHC). Bridges designed by the SHC, such as this one, represent the efforts of state government to improve the quality of bridge construction in South Dakota and break the hold the bridge building companies had on local governments. The bridge is also eligible under Criterion C as a representative example of standardized truss design developed by the SHC. Riveted bedsteads, such as this bridge, were the only pony trusses built in South Dakota after 1919 until about 1930. Bridges of this truss type have added significance because they represent the development of a standardized design unique to South Dakota. This bridge retains excellent integrity.

Prior to about 1920, South Dakota lacked a coordinated statewide system to control the quality and costs of bridge work in the state. Most of its counties and townships independently carried out their bridge building projects, with little coordination except for sharing costs for an occasional county-line road or bridge. Within each county, the commissioners determined the location, need, and plans and specifications for new bridges with little, or as in most cases, no technical expertise themselves or outside technical assistance. Each county seemed to be dominated by a bridge company different from neighboring counties, with the same company receiving bridge contracts in the same county year after year. This was mostly likely due to illegal "pooling" arrangements under which various bridge-building firms agreed to divide states among themselves, assigning particular counties to specific firms.

In 1919, however, the state government actively intervened to improve the quality of bridge construction in South Dakota. At this time, the South Dakota State Highway Commission (SHC) established a bridge department, hired a bridge engineer, and gave him responsibility for designing all state and county bridges and supervising the bidding process for bridge construction contracts. The first bridge engineer for the State of South Dakota was John E. Kirkham, a professor of engineering at Iowa State at Ames and consulting engineer to the Iowa State Highway Commission, among the most innovative state highway departments in the (continued)

OMB Approval No. 1024-0018

NPS Form 10-900-a (8-86)

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NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

Section number 8 & 9 

Bridge No. 58-010-376 Page 8

#### 8. Significance (continued)

country at the time. In South Dakota, Kirkham sought to reduce the cost of bridge construction and maintenance. He accomplished this in part by developing a series of standardized bridge plans which were especially suited to South Dakota's conditions of climate, terrain, and rural traffic needs.

One bridge plan devised by Kirkham for the South Dakota SHC was for a bedstead-type pony truss. Unique to Kirkham's design was its single-web upper chord in place of the conventional boxed upper chord. To critics, Kirkham argued that his design resulted in cost reductions because it required less materials to fabricate both the bridge superstructure and deck. Kirkham's pony truss design also called for concrete abutments with concrete approach guards to protect the ends of the truss. Kirkham believed that vertical end-posts, distinctive of the bedstead truss, with concrete approach guards provided a superior aesthetic design in comparison with other pony truss types. Although SHC pony trusses of Kirham's design replaced construction of riveted Pratt and Warren pony truss in South Dakota, it was not adopted by other states.

Although several of these standardized SHC pony trusses with vertical end posts and concrete approaches survive on the South Dakota landscape, Bridge no. 58-010-376 has added significance because it is one of the oldest surviving in the state. It was constructed by the Iowa Bridge Company in 1921.

#### 9. Bibliography

Spink County "Commissioners Record," Book G, p. 222, Auditor's Office, Spink County Courthouse, Redfield.