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United States Department of the Interior National Park Service



National Register of Historic Places Registration Form

NATIONAL REGISTER

This form is for use in nominating or requesting determinations of eligibility for individual properties or districts. See instructions in *Guidelines for Completing National Register Forms* (National Register Bulletin 16). Complete each item by marking "x" in the appropriate box or by entering the requested information. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, styles, materials, and areas of significance, enter only the categories and subcategories listed in the instructions. For additional space use continuation sheets (Form 10-900a). Type all entries.

| historic name other name/site number | Sutherland State Aid Bridge Birdwood Bridge; NEHBS Number LN00 | -32 | |
|---|--|--------------------|--|
| 2. Location | | | |
| street & number city, town state NE county | county road over the North Platte River 4.2 miles north of Sutherland Lincoln | | <u>A</u> not for publication vicinity zip code 69165 |
| 3. Classification | | | 2.6 0000 07100 |
| Ownership of Property | Lincoln County | Number of Resou | rces within Property |
| Category of Property | structure | Contributing 0 0 1 | Noncontributing O buildings O sites O structures O objects O Total |
| | ources previously listed in the National Register: 0 operty listing: Highway Bridges in Nebraska | ı, 1870-1942 | O Total |
| 4. State/Federal Agency | y Certification | | |
| Signature of certifying official State or Federal agency and but In my opinion, the property | does not meet the National Register Criteria. | ster Criteria. | 5/6/92 Date |
| Signature of commenting or oth | er official | | |
| State or Federal agency and bu | ıreau | | Date |
| | | | Date |
| 5. National Park Service | e Certification | | Date — |
| | operty is: al Register on sheet or the National intinuation sheet | du | Date |

Function or Use

Historic Function (enter categories from instructions) TRANSPORTATION/road-related

Current Function (enter categories from instructions) TRANSPORTATION/road-related

N/A

| 7. Description | | | |
|---|--|--|--|
| Architectural Classification (enter categories from instructions) | Materials (enter categories from instructions) | | |
| OTHER /concrete filled spandrel arch | foundation N/A | | |
| • | walls N/A | | |
| | roof N/A | | |

other

Describe present and historic physical appearance.

Located 4.2 miles north of Sutherland, the Sutherland State Aid Bridge spans the North Platte River in a rural Lincoln County setting that has changed little since the structure's period of significance. Other than maintenance-related repairs, the bridge remains essentially unaltered as it continues to carry vehicular traffic. The Sutherland State Aid Bridge today retains a high degree of integrity of location, design, setting, materials, workmanship, feeling and association. A description of the structure follows:

span number: span length:

14 50.0' construction date: 1914-15

construction cost: \$36,345.00

795.0' total length:

current condition:

good

16.0' roadway wdt.:

none alterations:

superstructure: concrete filled spandrel arch

substructure:

concrete abutments, wingwalls and piers on timber piles

asphalt over concrete deck floor/decking:

other features: solid concrete guardrails with recessed panels; bush-hammered panels on arch sidewalls

and pier pylons; angled concrete cutwaters on upriver face of piers.

Statement of Significance

Certifying official has considered the significance of this property in relation to other properties:

statewide

Applicable National Register Criteria

C

Criteria Considerations (Exceptions) Areas of Significance

N/A

Engineering

Period of Significance

1914-15 (The period of significance is derived from the original con-

struction date.)

Significant Dates Cultural Affiliation 1914-15 N/A N/A

Significant Person Architect/Builder (Designer)

Nebraska Bureau of Roads and Bridges

Lincoln Construction Company, Lincoln NE (Builder)

State significance of property, and justify criteria, criteria considerations and areas of significance noted above.

By 1912 the existing timber pile bridge over the North Platte River north of Sutherland had deteriorated beyond repair. Voters in Birdwood Precinct in which the bridge lay voted a bond issue in April 1912 and again the following year, and the county sought financial assistance from the newly formed state aid bridge fund. Early in 1914 the Nebraska State Engineer produced six alternate concrete designs for a multiple-span structure at Sutherland. The designs delineated fourteen 50-foot concrete arches or twenty-three 33-foot concrete girders, with a variety of substructures and either 16-foot roadways or 12-foot roadways with a wider 20-foot turnout at the bridge's center. When Lincoln County solicited bids in April for the Birdwood Bridge (so named for the precinct), it received responses from six bridge contractors: the Midland Bridge Company of Kansas City, Missouri, Monarch Engineering Company of Falls City Nebraska, Omaha Structural Steel Works, Central Construction Company of Colorado Springs Colorado, and J.L. Mullen and the Lincoln Construction Company, both of Lincoln Nebraska. The county awarded the contract to the Lincoln Construction Company for the arches on wood pile foundations. Soon thereafter, the Lincoln-based firm began assembling a large crew at the site. Work progressed throughout the remainder of 1914 and into the following year. At the end of December, 1915, the immense structure, by now called the Sutherland State Aid Bridge, was Total cost: \$36,345. The Sutherland Bridge has carried traffic since, in unaltered completed. condition.

The significance of the Sutherland State Aid Bridge to the history of Nebraska bridge building can hardly be understated. This remarkable structure is significant as perhaps the best remaining example of the state aid bridges. Although some 77 structures were built throughout the state under this program between 1912 and 1936, only 17 remain in use. Of these, only the Carns State Aid Bridge (NEHBS No. RO00-72) and the Cambridge State Aid Bridge (NEHBS No. FN00-98) predate Sutherland, but both of these have been altered. The Sutherland Bridge is also technologically significant as the best example in the state of concrete arch construction. Moreover, of the 17 multiple-span concrete arch bridges built under the state aid program in the 1910s and 1920s, all but the Sutherland Bridge have been destroyed or substantially altered, leaving this structure as the sole intact example of this important construction trend. The Missouri River bridges aside, the Sutherland State Aid Bridge is the most important vehicular span in Nebraska.

For further contextual information regarding bridge building in Nebraska, registration requirements, and property types, see related multiple property listing "Highway Bridges in Nebraska, 1870 - 1942."

| 9. Major Bibliographical References |
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| Nebraska Department of Roads, Structure Inventory and Appraisal: Structure Number C005661710; Lincoln County Bridge Record: Bridge Number 6, Birdwood Bridge; Lincoln County Commissioners' Record, Book 7: 5 March 1912 (pages 89-92), 12 April 1912 (pages 96-97), 30 April 1912 (page 100), 5 February 1913 (pages 146-48), 13 March 1913 (page 155), 2 March 1914 (page 208), 6 April 1914 (pages 213-14), 20 May 1914 (page 228), 19 July 1915 (page 325), 30 December 1915 (page 373), located at Lincoln County Courthouse, North Platte, Nebraska; Nebraska Department of Public Works, Tenth Biennial Report, 1912-14, pages 251-52; Aivars G. Ronis, "Nebraska State Aid Bridges," typewritten report by Nebraska Department of Roads, 1917, revised September 1978, n.p.; field inspection by Clayton Fraser, 3 May 1989. |
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| See continuation sheet |
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| 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 # |
| 10. Geographical Data |
| Acreage of Property less than one acre |
| Cadastral Reference S4/5, T14N, R33W |
| USGS Quadrangle Hershey West (7.5 Minute Series, 1971) UTM References zone 14 easting 332530 northing 4563940 |
| See continuation sheet |
| Verbal Boundary Description The nominated property is a rectangular shaped parcel measuring 795 feet by 18 feet, which is centered on the UTM point listed above. Included within this rectangular parcel are the bridge's superstructure, substructure, floor system, and approach spans. |
| |
| See continuation sheet |
| Boundary Justification |
| The nominated structure includes the bridge's superstructure, substructure, floor system, any approach spans and the property on which they rest. These boundaries encompass, but do not exceed, all of the property that has been historically associated with this bridge. |
| See continuation sheet |
| |

name/title Clayton B. Fraser, Principal organization Fraserdesign and Hess, Roise and Company date 30 June 1991 street & number 1269 Cleveland Avenue telephone 303-669-7969 city or town Loveland state Colorado zip code 80537