

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: 89002191 Date Listed: 1/4/90

West Sappa Creek Lattice Norton KS  
Property Name County State

Metal Truss Bridges in Kansas 1861--1939 MPS  
Multiple Name

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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.

Beth Boland  
Signature of the Keeper

1/4/90  
Date of Action

=====  
Amended Items in Nomination:

Item #2, Location: The correct county code is 137.

#7, Description: Materials include 1) Metal: wrought iron or steel; and 2) Concrete.

Item #8, Significance: The applicable area of significance is engineering only.

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DISTRIBUTION:

- National Register property file
- Nominating Authority (without nomination attachment)

United States Department of the Interior  
National Park Service

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NOV 21 1989

# National Register of Historic Places Registration Form

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.

### 1. Name of Property

historic name West Sappa Creek Lattice

other names/site number West Sappa Creek Lattice

### 2. Location

On unimproved county road 4 miles north & .2 miles west of intersection F.A.S. 1970 & F.A.S. 839

street & number on unmarked county road

not for publication

city, town Norton

vicinity

state Kansas

code KS

county Norton

code 57

zip code 67654

### 3. Classification

Ownership of Property

- private
- public-local
- public-State
- public-Federal

Category of Property

- building(s)
- district
- site
- structure
- object

Number of Resources within Property

Contributing	Noncontributing
_____	_____ buildings
_____	_____ sites
<u>1</u>	_____ structures
_____	_____ objects
<u>1</u>	_____ Total

Name of related multiple property listing:

Metal Truss Bridges in Kansas

Number of contributing resources previously

listed in the National Register 0

### 4. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that

nomination  request for determination of eligibility meets the documentation standards for registering properties

National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR

In my opinion, the property  meets  does not meet the National Register criteria.  See continuation sheet.

Signature of certifying official Ramon Powers

Date Nov 16, 1989

State or Federal agency and bureau \_\_\_\_\_

In my opinion, the property  meets  does not meet the National Register criteria.  See continuation sheet.

Signature of commenting or other official \_\_\_\_\_

Date \_\_\_\_\_

State or Federal agency and bureau \_\_\_\_\_

### 5. 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:)

Beth Bolard

1/4/90

**6. Function or Use**

Historic Functions (enter categories from instructions)

Transportation: Road Related (Vehicular): Bridge

Current Functions (enter categories from instructions)

Transportation: Road Related Vehicular: Bridge

**7. Description**

Architectural Classification

(enter categories from instructions)

Other: Lattice Pony Truss

Materials (enter categories from instructions)

foundation

walls

roof

other Metal : Wrought Iron or Steel

Describe present and historic physical appearance.

The West Sappa Creek bridge, erected ca. 1900, is a lattice girder of riveted construction. The single span is 38 1/2 feet long and 15 1/2 feet wide. The concrete deck rises 3 feet above the bottom of the stream channel. The bridge is located at a slight bend of the road and sits on a slight northeast-southwest alignment. This is often true with early bridges as this misalignment allowed a right angle approach to the river and a saving of money in both bridge length and amount of fill required.

The members of a truss bridge are designated either as chord members or web members. Chord members are those mainly defining the outlines of the structure and they are termed lower or upper chord members depending on whether they are found at the bottom or the top of the structure. Members between the chords are web members. They are called posts or ties if they sustain compression or tension respectively. In the instance of the West Sappa Creek bridge, the chords and endposts are fabricated from angle stock riveted to a top cover plate. A bar lattice is used to form the two respective panels, which become a strong and stiff web. No external sway bracing is used in this particular design. Iron eye bars are wrapped around and over the top chord and attached to the bottom chord by the use of a pin. This consists of metal I beams suspended below the bottom chord at these pin connection points. Cast iron sunflowers form a decorative element on both panels. The road is very highly traveled and the bridge retains a high degree of structural integrity.

**8. Statement of Significance**

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

nationally  statewide  locally

Applicable National Register Criteria  A  B  C  D

Criteria Considerations (Exceptions)  A  B  C  D  E  F  G

Areas of Significance (enter categories from instructions)

Engineering

Transportation

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Period of Significance

Ca 1900

CA 1900

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Significant Dates

Ca 1900

Ca 1900

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Cultural Affiliation

N/A

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Significant Person

N/A

\_\_\_\_\_  
\_\_\_\_\_

Architect/Builder

Canton Bridge Company

\_\_\_\_\_  
\_\_\_\_\_

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

The Town lattice truss was patented by Ithel Town in 1820. The closely spaced diagonal members created a stiff web that was quite strong. The early examples were constructed of wood, but by the late 19th century a few were constructed of metal, generally wrought iron.

No construction data has presently been located about the West Sappa Creek bridge. It was selected as a candidate in this nomination as it is a good example of late lattice truss design with good integrity. Approximately ten lattice pony trusses are known to exist in Kansas. All are approximately the same length of 36 feet. Eight of these ten bridges remain in Norton county.

The Canton Bridge Company, Canton, Ohio, was advertising in the Engineering Record, as early as 1876, but little is known about their early history. It was incorporated in 1891 by W. E. Sherlock, President, and V. H. Hammond, Vice President, and C. E. Timkler, Chief Engineer. It is possible that V. H. Hammond was a relative of Wrought Iron Bridge Company's D. Hammond. The company operated independently until 1925, when it was purchase by Massillion Steel Joist Company of Massillion, Ohio. In 1927 the two companies were merged into the Macomber Steel Company and the Canton Bridge Company name was dropped.

The Kansas Department of Transportation (KDOT) carried out a statewide inventory of historic bridges between 1980 and 1983. The bridges to be included were identified through computer printouts developed by KDOT, from information supplied by the counties (since almost all of the historic bridges were located on secondary rather than the primary road system), and by direct observation by field personnel. All bridges were inspected by KDOT personnel to verify the data on file. That information was jointly evaluated by representatives of KDOT, Kansas State Historical Society, and the State Historic Preservation Officer.

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Each structure was evaluated using a points rating system adapted from the points evaluation rating developed by the Ohio Department of Transportation and Ohio Historic Preservation Office. Consideration was given to areas such as age, builder, number of spans, length, special features, history, integrity, surviving numbers, and preservation potential.

In many instances there is little information about individual structures. Often bridge plaques which may have contained information have been removed, or the county's records are not complete or have been destroyed. Due to the large numbers of similar structures there is often little to choose from in differentiating among individual bridges other than condition and the likelihood of preservation.

The purpose of the KDOT study and subsequent evaluation was to identify a representative selection of bridges of each class. Through this approach KDOT and KSHS hope to preserve for posterity some examples of each type.

**9. Major Bibliographical References**

Victor C. Darnell, American Bridge Building Companies, Washington, DC: Society for Industrial Archeology Occasional Publication 4, 1984.

David Weitzman, Traces of the Past: A Field Guide to Industrial Archeology, New York: Charles Schribner's Sons, 1980.

James L. Cooper, Iron Monuments to Distant Posterity, DePauw University, F.H.W.A., Indiana Dept. of Highways, Indiana Dept. Natural Resources, N.P.S., 1987.

Dan G. Deibler, A Survey and Photographic Inventory of Metal Truss Bridges in Virginia, Charlottesville: Virginia Highway & Transportation Research Council, 1975.

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 # \_\_\_\_\_

Primary location of additional data:

- State historic preservation office
- Other State agency
- Federal agency
- Local government
- University
- Other

Specify repository:

Kansas State Historical Society

**10. Geographical Data**

Acreage of property less than one acre

UTM References

A 1 4 | 4 0 6 2 2 5 | 4 4 2 6 6 8 0  
 Zone Easting Northing

C \_\_\_\_\_

B \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_  
 Zone Easting Northing

D \_\_\_\_\_

See continuation sheet

Verbal Boundary Description

The nominated property is located on the NW 1/4, NW 1/4, NE 1/4, NE 1/4, section 11, township 1 south, range 25 west on a tract measuring 38 1/2' x 15 1/2' whose northeast corner is represented by the northeast corner of the bridge. Beginning at the northeast corner the boundary proceeds 38 1/2' southwest, 15 1/4' northwest, 100' northeast, and 16' southeast to the point of beginning.

See continuation sheet

Boundary Justification

The boundary includes only that area that is historically associated with the nominated property.

See continuation sheet

**11. Form Prepared By**

name/title Larry Jochims

organization Kansas State Historical Society date September 20, 1989

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city or town Topeka state KS zip code 66612