

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: 97000756

Date Listed: 7/25/97

Conant Creek Pegram Truss

Railroad Bridge

Property Name

Fremont

County

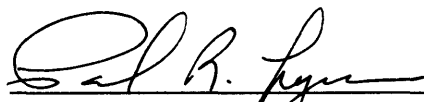
ID

State

Pegram Truss Railroad Bridges of Idaho 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.


Signature of the Keeper

7/25/97
Date of Action

=====

Amended Items in Nomination:

Significance:

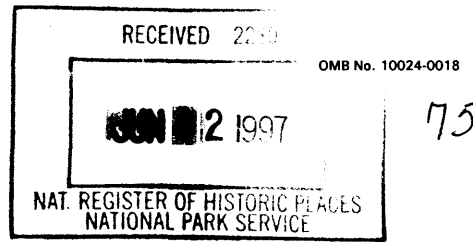
The current documentation fails to support the National Register eligibility of the property under Criterion B. [George H. Pegram is removed as a "Significant Person," and Criterion B is dropped.]

The Period of Significance is revised to read 1894-1916 to encompass the dates of original construction, the significant relocation of the bridge to its current site, and the subsequent changes to the Pegram truss elements. The alterations that occurred in 1927 do not materially affect the significance or integrity of the bridge under Criterion C.

This information was confirmed with Don Watts of the ID SHPO.

DISTRIBUTION:

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



United States Department of the Interior
National Park Service

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 *How to Complete the National Register of Historic Places Form* (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer to complete all items.

1. Name of Property

historic name Conant Creek Pegram Truss Railroad Bridge

other names/site number _____

2. Location

street & number Approx. 1 m. S. jct. Squirrel Rd. and Old Ashton-Victor railroad spur line N/A not for publication

city or town Grainville, Drummond _____ x vicinity

state Idaho code ID county Fremont code 043 zip code _____

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, 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 X statewide ___ locally. (___ See continuation sheet for additional comments.)



6/7/97

Signature of certifying official/Title

Date

Robert M. Yohe II, State Historic Preservation Officer

State or Federal agency and bureau

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

Signature of certifying official/Title

Date

State or Federal agency and bureau

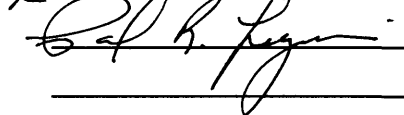
4. National Park Service Certification

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:)

R Signature of the Keeper

Date of Action

 7/25/97

Conant Creek Pegram Truss Railroad Bridge
Name of Property

Grainville, Drummond, Fremont County, Idaho
City, County, and State

5. Classification

Ownership of Property
(Check as many boxes as apply)

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

Category of Property
(Check only one box)

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

Number of Resources within Property
(Do not include previously listed resources in the count.)

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

Name of related multiple property listing
(Enter "N/A" if property is not part of a multiple property listing.)

Pegram Truss Railroad Bridges of Idaho

Number of contributing resources previously listed in the National Register

N/A

6. Function or Use

Historic Functions
(Enter categories from instructions)

TRANSPORTATION: rail-related

Current Functions
(Enter categories from instructions)

TRANSPORTATION: pedestrian-related
(work in progress)

7. Description

Architectural Classification
(Enter categories from instructions)

OTHER: Pegram through truss bridge

Materials
(Enter categories from instructions)

foundation CONCRETE
walls _____
roof _____
other STEEL

Narrative Description

(Describe the historic and current condition of the property on one or more continuation sheets.)

X See continuation sheet(s) for Section No. 7

8. Statement of Significance

Applicable National Register Criteria
(Mark "x" on one or more lines for the criteria qualifying the property for National Register listing.)

- 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.
- 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
(Mark "x" on all that apply.)

Property is:

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

Areas of Significance
(Enter categories from instructions)

Engineering

Period of Significance

1894-1927

Significant Dates

1894, 1911, 1916, 1927

Significant Person

(Complete if Criterion B is marked above)

George H. Pegram

Cultural Affiliation

N/A

Architect/Builder

George H. Pegram, Engineer

Narrative Statement of Significance

(Explain the significance of the property on one or more continuation sheets.)

X See continuation sheet(s) for Section No. 8

9. Major Bibliographical References

Bibliography

(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

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

Name of repository:

X See continuation sheet(s) for Section No. 9

Conant Creek Pegram Truss Railroad Bridge
Name of Property

Grainville, Drummond, Fremont County, Idaho
City, County, and State

10. Geographical Data

Acreege of property less than one

UTM References

(Place additional UTM references on a continuation sheet.)

A 1/2 4/7/0/8/2/0 4/8/7/3/3/3/0
Zone Easting Northing

B / / / / / / / / / /
Zone Easting Northing

C / / / / / / / / / /

D / / / / / / / / / /

Verbal Boundary Description

(Describe the boundaries of the property.)

The property is bounded by the exterior physical dimensions of the bridge and its supporting piers and approach spans.

 See continuation sheet(s) for Section No. 10

Boundary Justification

(Explain why the boundaries were selected.)

The boundary is the minimal size necessary to convey the bridge's historic significance as an engineering structure.

 See continuation sheet(s) for Section No. 10

11. Form Prepared By

name/title Donald W. Watts

organization Idaho State Historic Preservation Office

date May 20, 1997

street & number 210 Main Street

telephone (208) 334-3861

city or town Boise

state ID zip code 83702

Additional Documentation

Submit the following items with the completed form:

- **Continuation Sheets**

- **Maps:** A USGS map (7.5 or 15 minute series) indicating the property's location.

A **Sketch map** for historic districts and/or properties having large acreage or numerous resources.

- **Photographs:** Representative **black and white photographs** of the property.

- **Additional items** (Check with the SHPO or FPO for any additional items.)

Property Owner

name Idaho Department of Parks & Recreation

street & number 5657 Warm Springs

telephone (208) 334-4199

city or town Boise

state ID zip code 83702-8752

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 *et seq.*).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Projects (1024-0018), Washington, DC 20503.

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County and State Fremont County, Idaho

NARRATIVE DESCRIPTION

The Conant Creek bridge is located about one mile south of Grainville and one and a half miles northwest of Drummond, Idaho.

The bridge is composed of three pin-connected Pegram deck truss spans at the center, with steel deck girders and timber approach spans at either end, carrying a single track. The bridge is supported by four steel towers.

Each Pegram span is 164 feet long and 14 feet wide with a maximum depth of 30 feet, and each is composed of seven panels. Connecting the Pegram spans at either end are two steel deck girders of 60 feet and 30 feet, thence timber approach spans approximately 60 feet long at the north end and 45 feet long at the south. The total length of the bridge is approximately 780 feet.¹ The two center towers are each approximately 107 feet tall, and from their base to the roadbed is 137 feet.

Minor modifications to this bridge have occurred at several times. This bridge was erected in 1911 using the Pegram spans disassembled the same year from the Snake River crossing at American Falls. In 1916 the Pegram trusses were each reinforced with another similar truss along the centerline. In 1927 the existing steel girders replaced the original (1911) timber Howe trusses.² Several years ago the rails were removed when the line was abandoned.

The original Pegram trusses were fabricated in 1894 by the Union Bridge Company (New York); the four primary steel towers were fabricated in 1911 by the American Bridge Company who also manufactured the centerline reinforcing trusses in 1915. It is believed that the 1927 steel deck girders were fabricated by Paxton & Verling Iron Works.³

¹ Union Pacific Railroad Company; Drawing # 15581, "Conant Creek Bridge -- M.P. 7.0, General Plan," Feb. 13, 1911.

² UPRR; drawings C9947, E1-2, "Bridge #7-A, Victor Branch O.S.L.RR., Reinforcing 3-164'-0" Pegram Spans," 1916; and UPRR Drawing #22436, File No. 1002-E, "Bridge No. 6.96 over Conant Creek near Grainville, Idaho," May 13, 1927.

³ *Ibid.* See also UPRR "Order #10974-1937," n.d. This reference specifically mentions manufacturers of the bridge segments.

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County and State Fremont County, Idaho

STATEMENT OF SIGNIFICANCE

The Conant Creek Pegram truss railroad bridge is significant under Criterion C for its engineering design and under Criterion B for its association with George H. Pegram. This bridge is included in the Pegram Truss Railroad Bridges of Idaho Multiple Property Listing. For a full discussion of the bridge type and significance, see the Multiple Property Documentation Form.

The Pegram truss is a design patented in 1885 by George H. Pegram (1855-1937), an enterprising civil engineer who developed the design early in his professional career. The principal concept of the truss was to standardize the lengths of the top chord members and the longer bottom chord members. Visually, this resulted in the compression posts radiating outward from the center of the truss at increasing angles from the vertical. The intent of the design was to minimize fabrication costs by using standardized member lengths. By saving construction time in both fabrication and erection of the bridge, Pegram intended that this would be a more economical bridge design than other polygonal bridges of the time (Parker truss and others).

The use of the Pegram truss in bridge construction was directly attributed to Pegram himself. As a patented design, only he had the unrestricted right to utilize the truss; although other engineers were free to construct Pegram truss bridges (and pay appropriate royalties on the patented design), it appears that only Pegram used the truss. All known surviving Pegram bridges were constructed while Pegram was chief consulting engineer for the Missouri Pacific Railway Company and while chief engineer for the Union Pacific Railroad Company. The truss design was used for virtually all new bridges constructed on new lines and all replacement bridges on the old lines while he was with the Missouri Pacific from 1889 to 1893 (primarily constructed in Louisiana, Arkansas, Nebraska, and Kansas). While he was with the Union Pacific from 1893 to 1898, the truss design was used for bridges in Idaho and Utah, and possibly Wyoming. Over time, the bridges were replaced to accommodate larger loads, and there appear to be only a few surviving examples left in the United States--in Idaho, Washington, Utah, and Kansas.

The Conant Creek Bridge

The three Pegram spans used in the Conant Creek bridge were originally erected at American Falls in 1894 as part of the first crossing of the Oregon Short Line over the Snake River. The bridge approach spans were modified several times during the next decade and a half, and the entire bridge itself was replaced in 1911.

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County and State Fremont County, Idaho

The primary significance of the Conant Creek bridge lies with its possibly unique engineering design. Although a deck truss bridge configuration is included in Pegram's 1885 patent and his articles describing the truss design, research to date has not turned up any evidence of actual construction of a Pegram deck truss bridge. All other known bridges (both surviving and nonextant) were apparently through trusses. An interesting note is that although Pegram's autobiography indicates a degree of personal pride in his three 1,000-foot crossings of the Snake, he does not make any special mention of building any other Pegram deck truss bridge anytime or anywhere else during his career.⁴

The visual appearance of the Conant Creek structure is striking. The principal of the Pegram truss is in the equal top chord members and equal, but longer, bottom chord members. Because this bridge is a deck-configuration, (necessitated, of course, by the flat roadbed), the truss design results in a curved bottom chord. As with the through trusses, the compression posts radiate outward from the center at increasing angles from the vertical. The visual result gives an almost drapery-effect to the bridge's appearance. A similar visual appearance can be seen in Pegram's design for the roof of the Union Station trainshed in St. Louis (1891).

⁴ Pegram, George H.; "Autobiography of George H. Pegram," *Civil Engineering*, Jan. - Apr. 1939.

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County and State Fremont County, Idaho

BIBLIOGRAPHY

Beal, Merrill D., and Merle W. Wells; History of Idaho (New York: Lewis Historical Publishing Company, Inc.), 2 vols, 1959.

Beal, Merrill D.; Intermountain Railroads: Standard and Narrow Gauge (Caldwell, ID: Caxton Printers, Ltd.), 1962.

Beran, J. R., Chief Engineer - Design, Union Pacific Railroad, letter to Donald W. Watts, Idaho State Historical Society, June 8, 1990.

-----; letter dated September 13, 1990.

Comp, T. Allan, and Donald Jackson; Bridge Truss Types: A Guide to Dating and Identifying (Nashville: American Association for State and Local History); Technical Leaflet 95, n.d.

Ehernberger, James L., and Francis G. Gschwind; Smoke Down the Canyons (Callaway, NE: E. & G. Publications), 1966.

Engineering News, Feb 14, 1891, p 154 (with inset); Feb 21, 1891, p 178; Feb 28, 1891, pp 207-; Mar 14, 1891, p 254; Apr 11, 1891, p 351; Apr 25, 1891, pp 402-3; May 2, 1891, p 428.

Idaho Bridge Inventory (SHPO Report #17); Idaho Transportation Department, 1983.

Watts, Donald W.; "Mr. Pegram's Bridges: Engineering Legacies in Idaho," *Journal of the West*, Vol. XXXI, No. 1, January 1992, pp 79-87.