# National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in *How to Complete the National Register of Historic Places Registration 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 instruction. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter or computer, to complete all items.

## 1. Name of Property

| historic name: Columbia River Bridge at Umatilla |
| other names/site number: Bridge Number 82/280S |

## 2. Location

| street and number: Southbound Interstate Route 82 over the Columbia River |
| city or town: N/A not for publication |
| state: Washington / Oregon |
| county: Benton Co. / Umatilla Co. |

## 3. State/Federal/Tribal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this 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 meets [X] statewide [ ] locally. ( [ ] See continuation sheet for additional comments.)

| Signature of certifying official/Title | Date |
| State or Federal agency or Tribal Government |

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 or Tribal Government |

## 4. National Park Service Certification

I hereby certify that the 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:) |

<table>
<thead>
<tr>
<th>Signature of the Keeper</th>
<th>Date of Action</th>
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</thead>
</table>

### 5. Classification

<table>
<thead>
<tr>
<th>Ownership of Property</th>
<th>Category of Property</th>
<th>Number of Resources within Property</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Check as many boxes as apply)</td>
<td>(Check only one box)</td>
<td>(Do not include previously listed resources in the count.)</td>
</tr>
<tr>
<td>private</td>
<td>building(s)</td>
<td>Contributing</td>
</tr>
<tr>
<td>public-local</td>
<td>district</td>
<td>Noncontributing</td>
</tr>
<tr>
<td>X public-State</td>
<td>site</td>
<td>buildings</td>
</tr>
<tr>
<td>public-Federal</td>
<td>structure</td>
<td>sites</td>
</tr>
</tbody>
</table>

#### Name of related multiple property listing

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

Bridges and Tunnels Built in Washington State: 1951 to 1960

#### Number of contributing resources previously listed in the National Register

N/A

### 6. Function or Use

#### Historic Functions

(Enter categories from instructions)

- Transportation

#### Historic Subfunctions

(Enter subcategories from instructions)

- Road-Related

#### Current Functions

(Enter categories from instructions)

- Transportation

#### Current Subfunctions

(Enter subcategories from instructions)

- Road-Related

### 7. Description

#### Architectural Classification

(Enter categories from instructions)

- No Style

#### Materials

(Enter categories from instructions)

- Foundation: Concrete
- Other: Steel

#### Narrative Description

(Describe the historic and current condition of the property on one or more continuation sheets.)
Columbia River Bridge at Umatilla
Name of Property
Benton Co. / Umatilla Co., Washington / Oregon
County and State

8. Statement of Significance

Applicable National Register Criteria
(Mark "X" in one or more boxes for the criteria qualifying the property for National Register listing.)

- [X] 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.
- [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
(Mark "X" in all the boxes that apply.)

Property is
- [ ] A owned by 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.
- [X] G less than 50 years of age or achieved significance within the past 50 years.

Areas of Significance
(Enter categories from instructions)

- Engineering
- Transportation

Period of Significance
- 1954-1955

Significant Dates
- 1955
- 1954

Significant Person
(Complete if criterion B is marked above)

- N/A

Cultural Affiliation

Architect/Builder
- Tudor Engineering Company, Designer
- Austin Construction Company, Builder
- Cascade Construction Company, Builder
- American Bridge Company, Builder
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
- □ See continuation sheet for additional HABS/HAER documentation.

Primary location of additional data:
- □ State Historic Preservation Office
- □ Other State Agency (Repository Name: WSDOT)
- □ Other (Repository Name: ODOT)

10. Geographical Data

Acreage of Property: 1.00

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

<table>
<thead>
<tr>
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<th>Easting</th>
<th>Northing</th>
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<td>319460</td>
</tr>
<tr>
<td>2</td>
<td>11</td>
<td>319739</td>
</tr>
</tbody>
</table>

Verbal Boundary Description
(Describe the boundaries of the property on a continuation sheet.)

Boundary Justification
(Explain why the boundaries were selected on a continuation sheet.)
11. Form Prepared By

name/title: Oscar R. "Bob" George, Bridge Engineer
organization: Washington State Department of Transportation / Environmental Affairs Office
date: 6/30/2001
street & number: PO Box 47332
telephone: (360) 570-6639
city or town: Olympia
state: Washington
zip code: 98504-7332
The Columbia River Bridge at Umatilla is located just west of McNary Dam and carries southbound traffic on Washington’s Interstate Route 82 across the river into Oregon. The highway, which serves as a major artery between the two states, crosses Oregon’s State Route 30 just south of the river and intersects with Interstate Route 84 further to the south.

Completed in 1955, the bridge is 3,308 feet long. The Washington end of the bridge consists of two 90-foot and five 100-foot steel riveted plate girder approach spans. The plate girders were erected in alternating 80-foot and 120-foot segments with hinged connections. The Oregon end of the bridge consists of two 90-foot and six 100-foot spans of similar type and construction. The 1,920-foot central portion of the bridge, as it crosses the Columbia, is a five span continuous Warren through truss. The truss consists of a 300-foot anchor span; a 600-foot span, made up of two 150-foot cantilevers and a 300-foot span, suspended from and tied to the cantilevers with pin and hanger connections; a 120-foot connecting span; a second, and similar, 600-foot span; and a second 300-foot anchor span. The lower chords of the bridge’s 600-foot span cantilevers, and anchor span trusses drop below the roadway resulting in a “partially through” configuration, rather than a “fully through” one, in those areas. From end to end of the bridge, the spans support a lightweight concrete roadway slab.

Each end of the bridge is supported on a concrete abutment on a pile-supported footing. All approach span intermediate piers are concrete and consist of a cross-beam on two strutted concrete columns, supported on spread footings. The four river piers are also founded on spread footings. Lower portions of these piers are 9-foot thick walls. They support, two 7-foot square columns connected transversely by a 1-foot thick wall.

The bridge carries two lanes of traffic within a curb-to-curb roadway width of 27 feet 7 inches, and provides 85 feet of vertical clearance above the river.
The Columbia River Bridge at Umatilla is eligible for listing in the National Register of Historic Places under Criterion A for its association with bridge building in Washington in the 1950s as per the "Bridges and Tunnels Built in Washington State, 1951-1960" MPD and for its association as a symbolic and functional part of the social and economic relationships between the states of Washington and Oregon. It is also eligible under Criterion C for its type, period, materials and method of construction. The bridge meets the threshold for eligibility established by Criteria Consideration G for properties yet 50 years old for its exceptional engineering significance.

The significant engineering feature of this bridge is the five-span continuous Warren through truss segment crossing the river. The configuration of the truss spans is unusual in its design by taking advantage of a submerged island near the middle of the Columbia. This resulted in the use of two 600-foot spans connected by a shorter, 120-foot span supported on the island's rock outcrop. With its two 600 foot spans, each constructed using the cantilever erection method, this is the only bridge in Washington having two spans constructed using that method. The 600-foot maximum span length is exceeded in length by only two bridges of this type: the Astoria-Megier Bridge (built in 1965) and the Lewis and Clark Bridge (built in 1929 and listed in the National Register). Both of these bridges also cross the Columbia River to Oregon.

Historic Context:

Constructed in 1954-55, the bridge replaced ferries at Umatilla and Patterson to the west, which at that time provided the only transportation across the Columbia in the region. As early as 1897, horse-powered ferries had crossed the river. (Horses walked on a platform to turn a gear-driven paddle mechanism.) In the early 1950s the Umatilla and Patterson ferries combined provided transportation for 255,000 vehicle crossings a year. However, transportation demand in the area had reached the point where travelers faced long delays when crossing by ferry.

Members of the Umatilla County Court, led by Judge James Sturgis, first conceived the idea of a bridge in the late 1940s. The bridge proposal was called "Sturgis' Folly" by cynics who criticized the Judge's efforts in promoting the project and saw a bridge as a long-term financial burden to taxpayers. The Judge and his colleagues viewed the ongoing activities at nearby McNary Dam, and the traffic that resulted in the U.S. Army Corps of Engineers having to provide its own ferry service for men and machinery moving back and forth across the Columbia. Raising the water level behind the dam would make irrigation of the nearby Horse Heaven Hills an economically feasible alternative to dry land wheat farming. With the completion of the John Day Dam downstream, the water level from Umatilla to the Dalles also would be raised high enough to eliminate much of the expense involved in lifting water for cropland. The weather, soil, and growing conditions were all available to turn the windblown sand into fertile farmland. A major drawback was ready access to markets. A bridge over the Columbia could solve this problem.

Faced with the potential for unprecedented agricultural and residential growth, and transportation that was losing ground against demand, the Umatilla County Court hired the San Francisco firm of Tudor Engineering to perform a feasibility study for a bridge across the river. Based on a favorable report by their consultant, the county proceeded to issue bonds to finance the construction of a bridge. The bonds were to be repaid from tolls collected from those using the bridge. Total cost of the bridge for construction, land acquisition, engineering, and bond interest was $10 million. No tax money was used for the bridge. Bridge bonds were paid in full by the end of August 1974 — six years ahead of schedule. Since the bridge opened to traffic on April 15, 1955, the areas on both sides of the bridge have experienced extensive agricultural and general economic development. A project that had once been labeled as "Sturgis' Folly" had become a phenomenal success.

The Tudor Engineering Company designed the bridge. Three separate contractors handled construction. The Austin Construction and Cascade Construction Companies from Portland, Oregon built the piers and approaches, and the American Bridge Company built the superstructure. Structural steel for the bridge was fabricated in the American Bridge...
Company's Gary, Indiana plant.

Following construction, the bridge was dedicated to the memory of William Switzer, native son and long-time resident of Plymouth, Washington. Switzer operated the Plymouth and Maryhill ferries across the Columbia from 1911 to 1941.

In November 1974, the tolls were removed and Washington and Oregon assumed joint ownership of the bridge. A second bridge was built adjacent to and east of the 1955 bridge in 1984. The newer bridge now carries all northbound traffic, while the 1955 bridge carries only southbound lanes.

In 1989 the bridge deck, sidewalks, and rail were removed from the steel plate girder approach spans of the bridge and replaced with a wider deck and concrete bridge barrier. Within the truss spans, the sidewalks and bridge rail were removed, the deck was widened and the entire deck received a concrete overlay and concrete traffic barriers. In addition, earthquake restrainers were added to various components of the bridge and safety hangers were added to provide redundancy to the truss hinge connections. Numerous rivets, suffering from loss or damage due to fatigue, were replaced by high strength bolts. These changes have had a minor impact on the appearance of the bridge.

Engineering Context:

In the late 19th Century, steel cantilever truss bridges had been favored in railroad bridge construction because of their capability to span much greater distances than simple trusses, reducing the number of costly pier supports needed. Since the construction of the Snake River Bridge at Lyons Ferry in 1927, this bridge type has played a significant role in wide river crossings in Washington.(4)

The design of the Columbia River Bridge at Umatilla adapted this bridge type to conditions at the site with the innovative provision of an anchor span, founded on a submerged rock outcrop at mid-river between two cantilever spans, across the two deeper river channels. This, and the use of sloping lower truss chords at each of the four river piers, simplified and reduced the length and cost of those piers. This bridge provides an excellent example of the evolution of this structure type using 1950s bridge engineering technology.
Section number 9. Major Bibliographical References


Section number 10. Geographical Data

Verbal Boundary Description
Longitudinal Boundaries: Extends to the pavement seats at either end of the bridge.

Lateral Boundaries: Edges of the structure.

Verbal Boundary Justification
The boundaries include all structural elements of the bridge.
Columbia River Bridge @ Umatilla

North: 11° 31' 46" E 50° 8' 90N
South: 11° 31' 43" E 50° 8' 80N
Columbia River Bridge at Umatilla
82/380 S
Benton Co, WA  Umatilla Co, OR
Photographer Unknown
Columbia River Bridge at Umatilla
82/280S
Benton Co., WA Umatilla Co., OR
Photographer Unknown

Columbia River Bridge at Umatilla
82/280S
Benton Co., WA Umatilla Co., OR
Photographer Unknown
Columbia River Bridge at Umatilla
# 82/280 S.
Benton Co, WA & Umatilla Co, OR
C. Holstine, Photographer
Bottom of S. approach deck & piers to NW

Columbia River Bridge at Umatilla
# 82/280 S.
Benton Co, WA & Umatilla Co, OR
C. Holstine, Photographer
Oblique view of S. approach & truss, & 1991 bridge # 82/280N at right
8/2001
Columbia River Bridge at Umatilla
# 82/280 S.
Benton & Umatilla Counties, WA, OR.
C. Holstine, Photographer
Elevation View to NE 8/2001

Columbia River Bridge at Umatilla
#82/280 S.
Benton Co, WA & Umatilla Co, OR
C. Holstine, Photographer
Deck view to NW on S approach 8/2001
Columbia River Bridge at Umatilla
# 82/280 S
Benton Co, WA & Umatilla Co, OR
C. Holstine, Photographer
S approach & piers to N.

8/2001

Columbia River Bridge at Umatilla
# 82/280 S
Benton and Umatilla Counties, WA, OR
C. Holstine, Photographer
Oblique view to N. of truss and South approach

8/2001
Historic Name: Columbia River Bridge at Umatilla
(Bridge Number 82/280s)
Address: Southbound Interstate Route 82 Over the Columbia River
City: Plymouth
County: Benton

Download nomination form

Historic Use: Transportation
Style: None
Built: 1954-1955
Architect: Tudor Engineering Company
Builder: Austin Construction, Cascade Construction, American Bridge Companies

Smithsonian Number: 45BN01259
Date Listed: 1/25/2001
Listing Status: WHR
Classification: STR
Resource Count: 1
Area of Significance: Engineering
Level of Significance: State
Listing Criteria:

Statement of Significance

The Columbia River Bridge at Umatilla is a five span continuous Warren through truss design. The configuration of the span is unusual in the fact that it takes advantage of a submerged island near the middle of the Columbia River. With its two 600 foot spans, each constructed using the cantilever method, this is the only bridge in the state having two spans constructed using that method.

Photos