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HAER INVENTORY										Historic American Engineering Record Department of the Interior, Washington, D.C. 20240									
1 SITE ID NO. [] [] [] [] [] [] [] [] [] []										2 INDUSTRIAL CLASSIFICATION Bridges, Trestles, and Aqueducts									
3 PRIORITY 1										4 DANGER OF DEMOLITION? (SPECIFY THREAT) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> UNKNOWN									
5 DATE 1911-14										6 GOVT SOURCE OF THREAT OWNER ADMIN									
7 OWNER/ADMIN City of Spokane										8 NAME(S) OF STRUCTURE Sunset Boulevard Bridge									
9 OWNER'S ADDRESS West 221 Wall Street Spokane, Washington										10 STATE COUNTY CITY/VICINITY CONG DIST WA 063 Spokane Spokane 05									
11 SITE ADDRESS STREET NO Crossing: Latah Creek S.T.R.: 24 25N 42E										12 EXISTING SURVEYS <input type="checkbox"/> NR <input type="checkbox"/> NHL <input type="checkbox"/> HABS <input type="checkbox"/> HAER-I <input type="checkbox"/> HAER <input type="checkbox"/> NPS <input type="checkbox"/> CIG <input type="checkbox"/> CONF <input type="checkbox"/> STATE <input type="checkbox"/> COUNTY <input type="checkbox"/> LOCAL <input type="checkbox"/> OTHER									
13 SPECIAL FEATURES (DESCRIBE BELOW) <input type="checkbox"/> INTERIOR INTACT <input type="checkbox"/> EXTERIOR INTACT <input type="checkbox"/> ENVIRONS INTACT										14 UTM ZONE EASTING NORTHING SIGN SCALE 11 466450 5277270 1:24 1:625 QUAD NAME Spokane, Washington									
15 CONDITION 70 <input type="checkbox"/> EXCELLENT 71 <input type="checkbox"/> GOOD 72 <input type="checkbox"/> FAIR 73 <input type="checkbox"/> DETERIORATED 74 <input type="checkbox"/> RUINS 75 <input type="checkbox"/> UNEXPOSED 76 <input type="checkbox"/> ALTERED 82 <input type="checkbox"/> DESTROYED 85 <input type="checkbox"/> DEMOLISHED										16 INVENTORIED BY Lisa Soderberg									
17 AFFILIATION HAER/Washington State Bridge Inventory										DATE June 1979									
17 DESCRIPTION AND BACKGROUND HISTORY INCLUDING CONSTRUCTION DATE(S), HISTORICAL DATE(S), PHYSICAL DIMENSIONS MATERIALS, EXISTANT EQUIPMENT, AND IMPORTANT BUILDERS, ENGINEERS, ETC. In 1911, construction was begun on the second of Spokane's grand, monumental concrete arches, the Latah Creek Bridge. This massive 1070 foot structure with distinctive classical detailing on the seven semicircular arch spans, evokes an undeniable sense of power. The bridge consists of two 150 foot arches, two 135 foot arches, one 128 foot arch, and two 54 foot abutment or approach arches. In order to connect two different streets on opposite ends of the valley, two arches on the west end were built on a skew with their piers on radial lines. In contrast to the flattened central arch of its predecessor at Monroe Street, the Latah Creek Bridge is composed of a series of Roman or semi-circular arches. Carl Condit points out in his volume on <u>American Building Art</u> that this arch form looks back to an older day in concrete arch design. However, there was some justification to the choice of an older arch design, because "the semicircular form exerts a thrust at the abutment with a minimum horizontal component," which is an important consideration in pier construction in a bridge of such magnitude. In addition, some of (CONT OVER)																			
18 ORIGINAL USE vehicular										19 PRESENT USE vehicular									
20 ADAPTIVE USE										21 REFERENCES - HISTORICAL REFERENCES, PERSONAL CONTACTS, AND/OR OTHER City Engineering files. J.F. Greene, "The Latah Creek Bridge, Spokane, Washington," <u>Engineering News</u> , Vol. 69, 27 March 1913. Carl Condit, <u>American Building Art</u> , 2 Vols., (New York, 1961), 2:201.									
22 URBAN AREA 50,000 POP OR MORE? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO										23 NPS REGION NW									
24 PUBLIC ACCESSIBILITY <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO										25 EDITOR INDEXER									
26 LOCATED IN AN HISTORIC DISTRICT? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO										27 DISTRICT ID NO. [] [] [] [] [] [] [] [] [] []									

Description (continued)

the box type piers were heavier than usual because much of the foundation material was compact sand which necessitated the construction of heavy reinforced-concrete spread foundations. In an article in Engineering News, J.F. Greene, the bridge construction engineer, gave an explanation for the choice of the arch design: "In the determination of span lengths for the arches, architectural considerations were given much weight and an effort was made to effect a combination which was adapted to the ground line and site. The intrados and extrados curves are many centered, and were so laid out as to give a neutral axis which conformed very closely with the thrust line under dead load."

Each arch consists of four arch ribs. In all spans the two outer ribs are four feet wide, while the two inner ribs are 6 feet wide. They are spaced 16 feet 6 inches center to center. Each outer rib is connected to the adjacent rib by a thin slab at the intrados. The floor slab connects the inner two ribs. Three keys were inserted in each arch rib, one at the crown and one at each third point. Each of the third point keys contains a 12 x 12 inch reinforced-concrete strut as a hinge.

Above each of the five main arches, are four spandrel arches. The two abutment arches have closed spandrels. The spandrel columns and arches which rest on the arch rings support a 45 foot roadway with two 7 foot sidewalks edged with ornamental cast iron posts. The roadway accommodates a double track for heavy interurban electric railway cars.

In the spandrel wall, concealed behind pilasters, expansion joints of steel rods and hoops have been inserted at the end of each panel to compensate for stress caused by temperature changes.

The falsework upon which the arch was centered consisted of a series of 8 x 8 inch posts spaced about 14 feet center to center longitudinally, and 5 feet apart transversely. Corbels were placed on these posts over which was built a rib. The ribs were designed to carry the load to the posts by arch action.

The concrete plant which consisted of a storage bin and mixer was located at the east end of the bridge. An industrial railway operated by a gasoline locomotive ran along the south half of the original timber trestle from which there were turnouts and hoppers for depositing the concrete in the arches and piers. In order to concrete each pair of arch ribs, the concrete was poured into eight voissior sections.

The steel for the \$416,000 structure was fabricated by the Lackamanna Steel Company, and the cement for the concrete was supplied by the Inland Portland Cement Company.

As is evident in the countless similarities between the two bridges, many of the people who were responsible for the design and construction of the Monroe Street Bridge were also responsible for the design and construction of the Latah Creek Bridge. Morton McCartney, who was a key individual in the construction of the Monroe Street Bridge, supervised the design and construction of the Latah Creek Bridge as City Engineer. Plans were prepared by W.S. Maloney with consulting advice from Waddell and Harrington of Kansas City. Waddell and Harrington also participated in the design of the falsework and in the planning of construction methods. J.F. Greene and W.H. Fisher were the construction engineers. J.F. Cunningham of Spokane was the contractor.

Like the Monroe Street Bridge, the Latah Creek Bridge is an early example within the State of a long-span fixed-end arch. Although the semi-circular arches of the Latah Creek Bridge were reminiscent of an earlier age of concrete and masonry arch construction, the steel reinforcement of the concrete structure pointed towards the future in concrete arch design.

ABSTRACT																			
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TECH REPORT										HIST RECD									
CONT EMP PHOTO										HIST PHOTO									
CONT EMP DRWG										HIST DRWG									
C. 12- 25										PAC. PROGRAM									
SVZ										PAC. PROGRAM									

Sunset Boulevard Bridge

25. Photos and Sketch Map of Location

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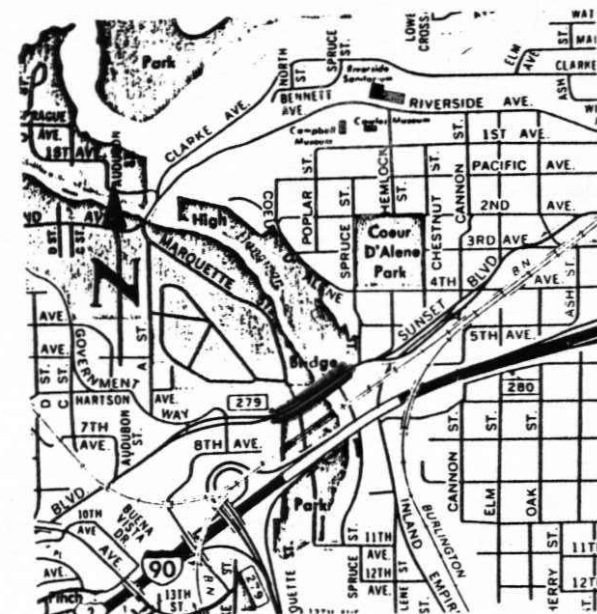
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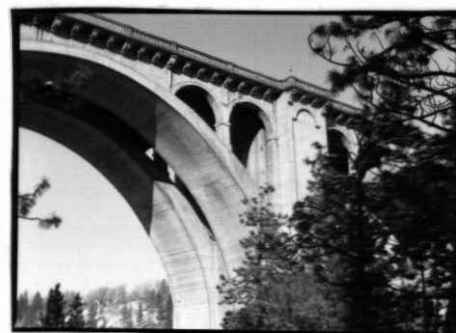
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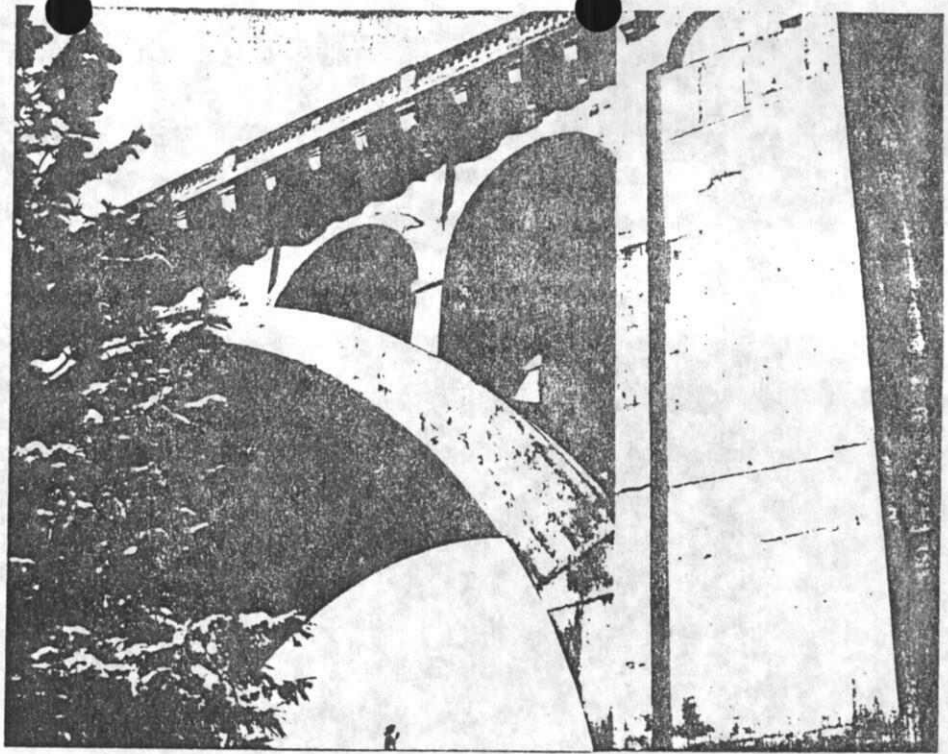


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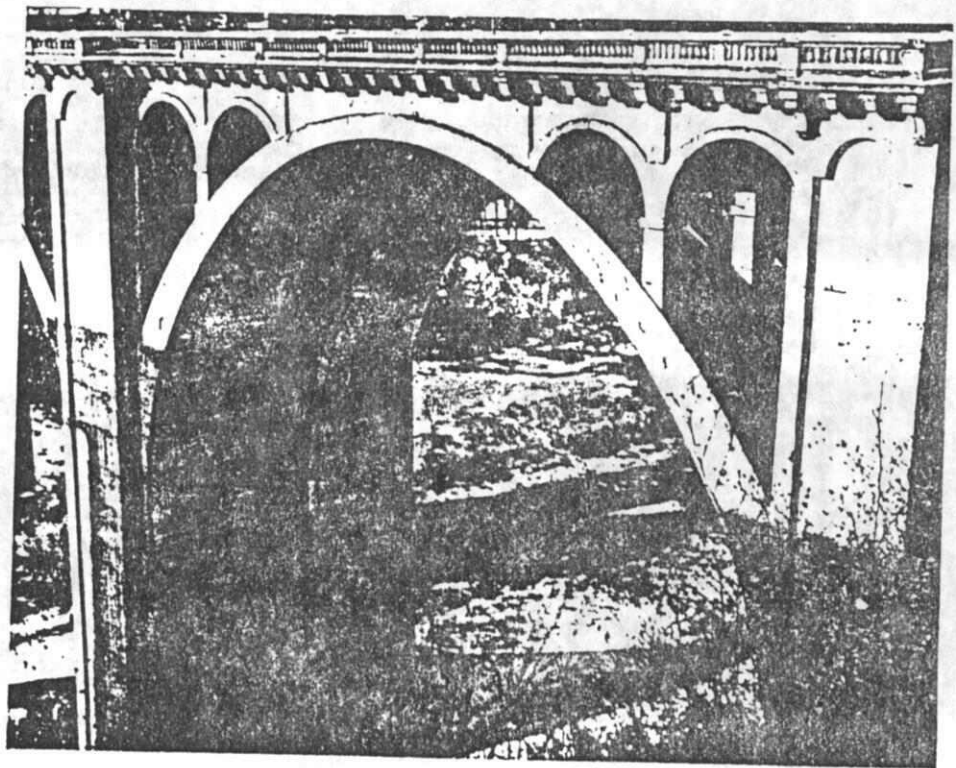


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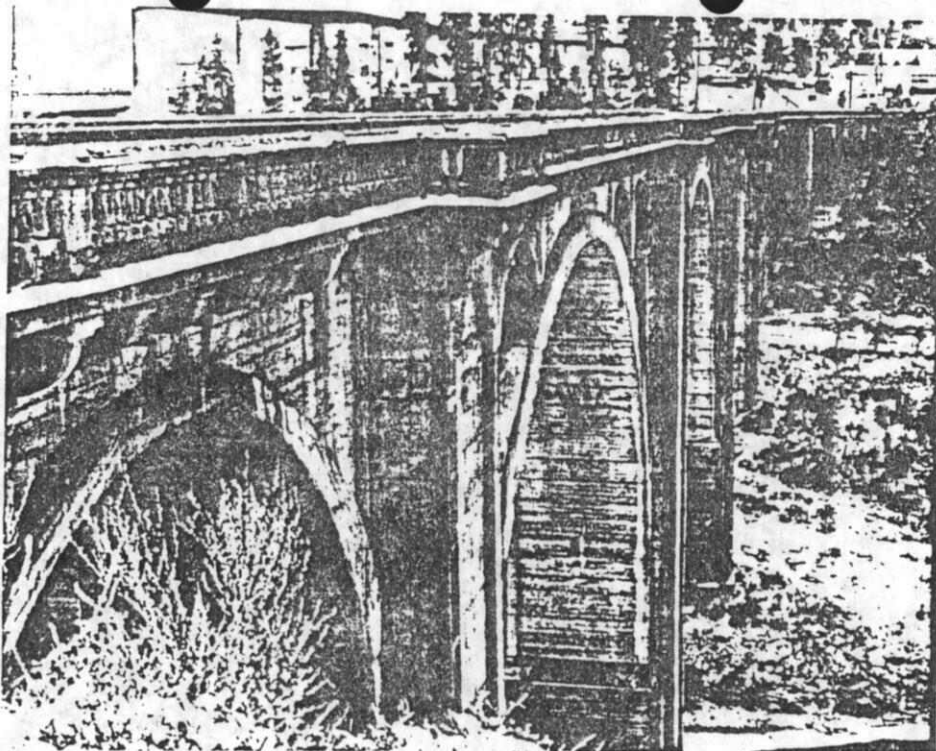




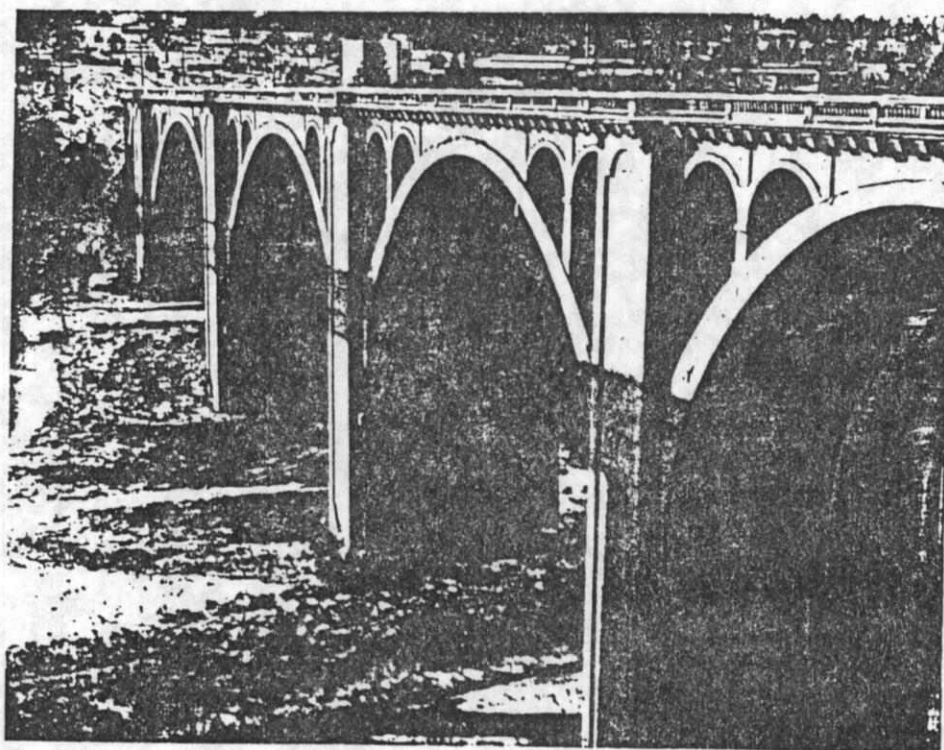
Latah Creek Bridge



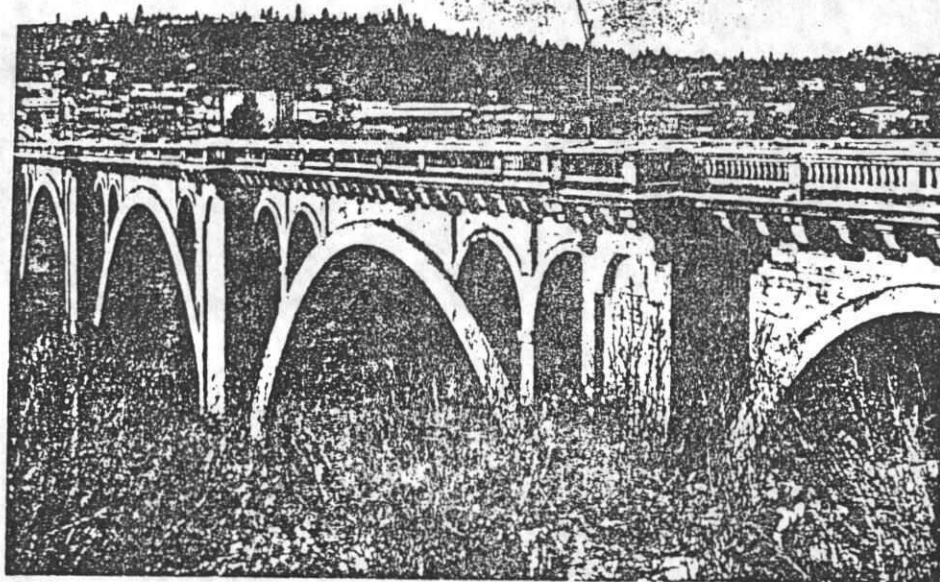
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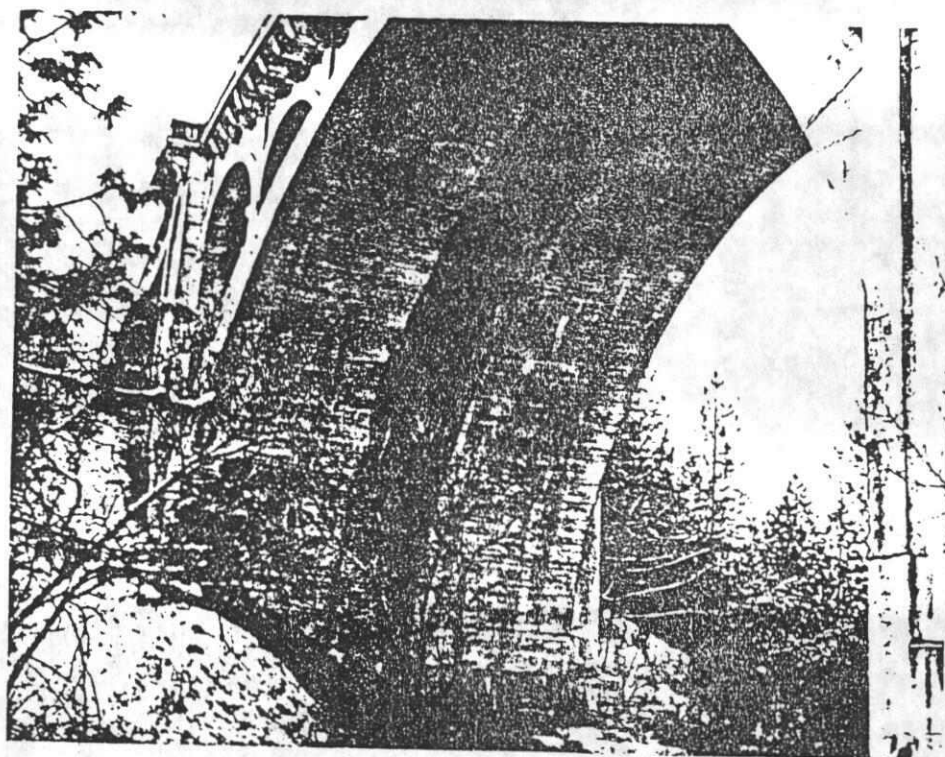
Latah Creek Bridge



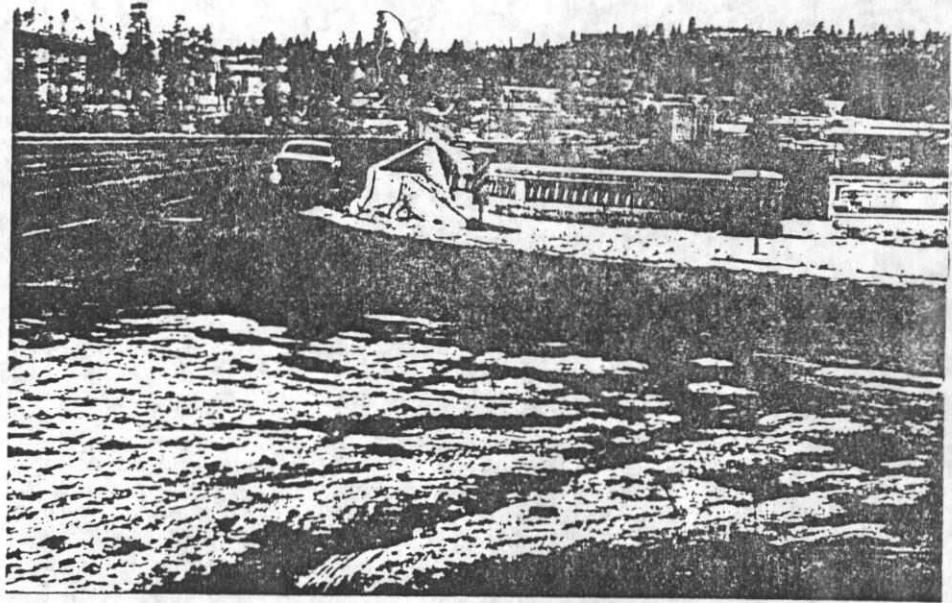
Latah Creek Bridge



Latah Creek Bridge



Latah Creek Bridge



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