

SWAN RIVER BRIDGE
Spanning the Swan River on Secondary Route 209
at Milepost 4.98
Bigfork vicinity
Flathead County
Montana

HAER NO. MT-147

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
Intermountain Support Office - Denver
National Park Service
P.O. Box 25287
Denver, Colorado 80225-0287

HISTORIC AMERICAN ENGINEERING RECORD
SWAN RIVER BRIDGE

I. INTRODUCTION

Location: Swan River Bridge
Spanning the Swan River on
Secondary Route 209 at Milepost 4.98
Bigfork vicinity
Flathead County
Montana

Quad: Crater Lake, Montana (1964)

UTM: 12/277729/5326249

Date of Construction: 1963

Present Owner: Montana Department of Transportation
Helena, Montana

Present Use: Highway Bridge

Significance: The Swan River Bridge is significant for its association with the Montana Department of Transportation's (MDT) secondary highway improvement program concurrent with the Interstate highway program. One of those projects was Secondary 209 (Swan River Road) between Bigfork and Swan Lake. The area had become an important resort area for recreationalists and vacationers. The road (and bridge) also provided better access to the increasing number of residences in the area. The bridge is a representative example of a standard MDT-designed prestressed concrete bridge. Other than the replacement of the guardrails, the bridge has not been altered or otherwise modified since its construction in 1963.

Historian: Jon Axline, Montana Department of Transportation
October 2013

II. HISTORY

British-Canadian fur trappers and traders were the first white men to visit the upper Flathead Valley. In 1810, Hudson's Bay Company Factor Joseph Howse built a post on the Flathead River southwest of Kalispell to trade with the Kootenai and Pend d'Oreille Indians. Unfortunately for Howse, the trading post also drew the less-than-appreciative Blackfeet, who did not approve of the company trading weapons to their enemies. Consequently, the trading post was abandoned in 1811. In 1812, North West Company trader and explorer David Thompson became the first Euro-American to document Flathead Lake. For the next decade there was fierce competition between the Hudson's Bay Company and the Nor'westers for dominance of the Indian trade in the area. The merging of the two companies in 1821 initiated a more systematic exploitation of the region by the Canadians. As a result, there was virtually no American presence in the area until the discovery of gold near the Kootenai River on Libby Creek in 1864.¹

The first known Euro-American settlement in the upper Flathead Valley occurred in 1845 when two French-Canadian trappers built cabins on Ashley Creek about 23 miles west of the Swan River Bridge. Both men attempted to farm the rich bottomland before the Blackfeet forced the men from their farms. The Hellgate Treaty of 1855 established the Flathead Reservation in the Jocko Valley south of Flathead Lake. Although the territory north of the lake and encompassing the bridge site was not included within the reservation boundaries, its remoteness precluded any large-scale Euro-American development until late in the nineteenth century. The area was, however, frequented by Kootenai Indians until well into the twentieth century. Even the valley's proximity to the gold mines near Libby and the abundance of harvestable timber in the area failed to stimulate the exploitation of the region. By the early 1870s, the federal government had mapped the area, but desultory hostilities by the Kootenai people against the few Euro-American settlers and the area's remoteness proved to be a barrier to settlement.²

Before the arrival of the Great Northern Railway in 1892, the residents of the valley were dependent on a system of poor roads and an abundance of river ferries. Although a road had been constructed along the west side of Flathead Lake in 1880, it was barely passable and open only seasonally. The road was improved somewhat in 1884 and 1889, but it did not significantly break down the natural barriers that hampered the development of the region. River ferries, thus, were critical to the development of the valley. The communities that grew up around them were important economic and social centers.³

The Swan River Bridge is located five miles east of the community of Bigfork on Montana Secondary Highway 209. Bigfork is located where the Swan River empties into Flathead Lake. The Great Northern Railway logged much of the area east of Bigfork in the 1890s and floated logs down the Swan River where they were pushed across the lake to the Somers Lumber

Company mill. In the late 1880s, Alvin Lee established a river ferry about three miles northwest of the future site of Bigfork near where the Flathead River emptied into the lake. Within a few years, Lee sold his ferry to Joe Holt, who retained the ferry operation and expanded it into a small settlement, called Holt, that included a saloon, blacksmith shop, store, and dance hall. Settlement in the Bigfork area began in 1885 or 1886 when George Lakin established an orchard in the vicinity of what would become Bigfork. In 1901, Everitt L. Sliter, who had arrived in the area in 1892 and planted an apple, plum, cherry, and pear orchard, platted the city of Bigfork. Sliter was the community's first postmaster and also operated the hotel and a general store. That same year, the Mountain States Power Company built a powerhouse on the Swan River near its confluence with Flathead Lake. Eight years later, in 1909, the Northern Idaho & Montana Power Company bought the power house and expanded the operation with the construction of a dam and power plant. Within a short time, the hydroelectric facility was providing power to Kalispell, Whitefish, Columbia Falls, and Bigfork. The presence of the facility sparked the growth of Bigfork, which boasted of an active commercial district and three hundred residents by 1915. Since then, Bigfork has seen continued growth not only as a trade center, but also as a resort community.⁴

The Swan River Bridge is located within Townships 26 and 27 North, Range 19 West. The General Land Office conducted and published the surveys for the townships in April 1893 and the area opened for settlement in 1894. Approximately 81 percent of the homesteads filed on in the townships were under the 1862 Homestead Act, with the remainder cash entries. Most of the townships were claimed by either the State of Montana in lieu of land elsewhere in the state or by the Northern Pacific Railway, also in lieu of land in the southern and western parts of the state. Most of the homesteads were claimed in the townships between 1894 and 1908. It is not precisely known when the Swan River Road (now Secondary Route 209) was established. The river provided the route for a short line logging railroad subsidized by the Great Northern Railway between the mouth of Swan River and Swan Lake, where the bulk of the company's logging activities occurred in the 1910s. The road does not appear on the 1893 GLO map of the townships. Evidence suggests that the road may have been established in 1914 when the railroad to Swan Lake was constructed. By the early twentieth century it became an access route between Bigfork and the small community of Swan Lake, which was established in 1915. The road became a state secondary highway in 1945.⁵

The Swan River Bridge

Beginning in February 1962, the Montana Highway Department attended meetings in Bigfork to discuss the proposed project on Secondary Highway 209. Highway department engineers had planned on reconstructing the highway on the north side of Swan River. But because of overwhelming public opinion in the area, the engineers designed a new roadway on the south side of the river. On December 19, 1962, the Montana State Highway Commission awarded a \$608,969 contract to construct 4.8 miles of Secondary 209, AKA the Swan River Road, in Flathead and Lake counties. The winning contractor was the Missoula, Montana-based Bud King Construction Company. In addition to the reconstruction of the road, the project also

involved the building of a 224-foot prestressed concrete bridge across the Swan River on the new alignment. The Montana Highway Department's Bridge Bureau had completed the design of the bridge in May 1962. The highway commission designated Secondary 209 in November 1945. King completed the project on July 3, 1964, the deadline set by the highway commission.⁶

The Montana Highway Department built its first prestressed concrete bridge on a secondary road in Custer County in 1958. Thereafter, the material gradually replaced the standard reinforced concrete for bridge beams. Prestressed concrete was commonly used on Interstate highway bridges and overpasses and, by 1962, was the material of choice of the highway department on primary and secondary roads. Between 1962 and 1991, the Montana Highway Department built 1,235 prestressed concrete bridges on the state's Interstates, primary, and secondary roads.⁷

III. THE BRIDGE

A. DESCRIPTION

The Swan River Bridge consists of a four-span, prestressed concrete structure. The bridge has a total length of 224 feet with two 55-foot spans and two 56-foot spans. The bridge is 32 feet wide with a 28-foot roadway width. The bridge rests on concrete abutments and three reinforced concrete piers.

Substructure

The bridge consists of two reinforced concrete abutments and three reinforced concrete piers.

Abutment No. 1 (west) is an open hammerhead-type structure that is approximately 40' 8" in length and 6' 6" in height. The abutment is 2' 6" wide. It rests on prestressed concrete pilings buried in the approach fill. The abutment is 2 feet in height at the ends and tapers out to 6' 6" where it connects to the bridge. The back wall is 4' 1" in height.

Pier No. 1 is a solid reinforced concrete columnar-type structure with two squared columns and a squared lintel. The columns and lintel are connected by a concrete web wall. The columns rest on two 8' x 9' x 9' concrete footings. The pier is 30 feet at the base and tapers to 27' 6" at the top. The columns are 27' 6" in height. The columns are 3' 2" x 3' 7" at the base, tapering to 4' 3" x 2' 6" at the caps. The web wall is recessed and is 21' 8" x 24' 6" x 1' 6".

Pier No. 2 is a solid reinforced concrete columnar-type structure with two squared columns and a squared lintel. The columns and lintel are connected by a concrete web wall. The columns rest on two 9' x 8' 6" x 8' concrete footings. The pier is 30 feet in length at the base and tapers to 27' 6" in length at the top. The columns are 2' 6" wide. The columns are 27' 6" in height. The web wall is recessed and is 21' 8" x 24' 6" x 1' 6".

Pier No. 3 is a solid reinforced concrete columnar-type structure with two squared columns and a squared lintel. The columns and lintel are connected by a concrete web wall. The columns rest on two 8' x 9' x 9' concrete footings. The pier is 30 feet at the base and tapers to 27' 6" at the top. The columns are 27'6" in height. The columns are 3' 2" x 3' 7" at the base, tapering to 4' 3" x 2'6" at the caps. The web wall is recessed and is 21' 8" x 24' 6" x 1' 6".

Abutment No. 2 (east) is an open hammerhead-type structure that is approximately 40' 8" in length and 6' 6" in height. The abutment is 2' 6" wide. It rests on prestressed concrete pilings buried in the approach fill. The abutment is 2 feet in height at the ends and tapers out to 6' 6" where it connects to the bridge. The back wall is 4' 1" in height.

Superstructure

The Swan River Bridge is a four-span prestressed structure. It is 244 feet in length and 32 feet wide with a roadway width of 28 feet. The bridge consists of two 56' 6" spans and two 55' 9" spans. The deck is supported by five lines of 24" x 40" prestressed concrete beams. The beams are 3' 4" x 1' 8" and are spaced 48" apart. The concrete deck is one-foot thick and flanked by 1' x 2' foot concrete curbs surmounted by steel post and beam guardrails. The post-and-beam guardrails run 228 linear feet on each side of the structure. There are 24 steel I-beam posts on each side of the structure. Each post is 7" x 7" and 4' 6" in length, with three feet exposed above the curbs. The top rails are 5" diameter steel pipes anchored at a canted angle on the posts. Steel ribbon rails are bolted midway on the posts. The ribbon rails are 12' 6" wide and replaced the original steel ribbon rails in 1993.

Material

The project plans specify the use of 36,697 pounds of reinforcing steel and the 537 cubic yards of cement for the structure.⁸

B. MODIFICATIONS

Other than occasional asphalt overlays of the concrete deck and the replacement of the steel ribbon guardrails in 1993, there have been no significant modifications made to the Swan River Bridge. The bridge is situated at its original location and the setting of the site is mostly intact.

C. OWNERSHIP AND FUTURE

The Swan River Bridge is owned and maintained by the Montana Department of Transportation (MDT). The MDT programmed this on-system bridge for replacement in 2011. Mitigation for National Register of Historic Places-eligible bridges are treated under the terms of a Programmatic Agreement (PA) that was implemented in 2007. The Swan River Bridge will be replaced sometime after 2015.

IV. BIOGRAPHICAL MATERIAL

Bud King Construction Company

The Bud King Construction Company incorporated in December 1947 and was in existence for 52 years until the company ceased operations in December 1999. Its founder, Hugh “Bud” King, was born in Florence, Montana, in 1915. After working variously as a logger, miner, nightclub proprietor, and shipbuilder, he went into business as a contractor in 1947. King was one of the prime contractors in the construction of the Noxon Rapids Dam in northwestern Montana in the early 1950s. King worked as a contractor on MDT projects from 1956 until at least 1966. During that time, he obtained contracts for 17 projects, including several multi-million dollar Interstate construction projects mostly in western Montana. King constructed the controversial Livingston – East and South project in Park County in 1961 that involved construction of the massive Springdale Cut about five miles west of the community of Springdale. Bud King and Great Falls-based McLaughlin, Inc. built the Sieben – North section of Interstate 15 north of Helena. Indeed, King, in partnership with John L. McLaughlin, built seven Interstate projects until the partnership dissolved in 1965. This Sieben – North and South project involved the construction of four-lane Interstate through the narrow Wolf Creek Canyon. Regarded as “one of the last of the great old-time rugged contractors,” King was also an ardent conservationist, serving as the chairman of the Montana Fish and Game Commission for many years. Bud King died in Missoula, Montana in July 1992.⁹

V. FOOTNOTES

1. Don Miller and Stan Cohen, *Military & Trading Posts of Montana* (Missoula: Pictorial Histories, 1979), 41; Kathryn McKay, *Looking Back: A Pictorial History of the Flathead Valley, Montana* (Kalispell: Northwest Valley Historical Society, 1997), 11, 13-14; Henry Elwood, *Kalispell, Montana and the Upper Flathead Valley* (Kalispell: Thomas Printing, 1989), 2; Carle F. O’Neil, *Muscle, Grit & Big Dreams: Earliest Towns of the Upper Flathead Valley, 1872-1891* (Kalispell: The Author, 1996), 16; Muriel Sibell Wolle, *Montana Pay Dirt*, (Athens, Ohio: Sage Books, 1963), 289.
2. McKay, *Looking Back*, 15, 17; Elwood, *Kalispell*, 3, 7-8; O’Neil, *Muscle, Grit & Big Dreams*, 32-34, 39; Kathryn L. McKay, *Montana Main Streets: A Guide to Kalispell* (Helena: Montana Historical Society Press, 2001), 8.
3. Paul Strong, *Before Kalispell: Demersville, Ashley, Egan, Half Moon, Salish* (Kalispell: Scott Publishing, 1998), 20, 44; O’Neil, *Muscle, Grit & Big Dreams*, 56; *Flathead Facts: Descriptive of the Resources of Missoula County* (Missoula: Missoula Publishing Company, 1890), 2; McKay, *Looking Back*, 36.
4. McKay, *Looking Back*, 41, 99, 100, 164; Elwood, *Kalispell*, 201, 215; O’Neil, *Muscle, Grit & Big Dreams*, 62-65; Roberta Carkeek Cheney, *Names on the Face of Montana: The Store of Montana’s Place Names* (Missoula: Mountain Press Publishing Company, 1990), 21; Margaret Hewitt, “Bigfork Area Rich in History,” *The Great Falls Tribune*, 3 April 1960; “Bigfork and

Its Surroundings.” *The Arcadian*, August 1915; *Montana Place Names from Alzada to Zortman: A Montana Historical Society Guide* (Helena: Montana Historical Society Press, 2009), 21.

5. General Land Office Records, viewed at www.glorerecords.blm.gov; *Montana Place Names*, 258-59; Cheney, *Names on the Face of Montana*, 260; File: 95 (TS) Secondary 209, Rail, Transit and Planning Division, Montana Department of Transportation, Helena, Montana.

6. “Bigfork-Ferndale Residents Favor New Road South of Swan River,” *The Kalispell Daily Inter Lake*, 2 February 1962; “Bigfork-Ferndale Area Residents Want New Road South of Swan,” *The Kalispell Daily Inter Lake*, 4 April 1962; Montana State Highway Commission Meeting Minutes, book 16, pp. 299, 300 (19 December 1962); “Note Highway Progress,” *The Kalispell Daily Inter Lake*, 20 August 1963; Bridge Plans & Quantities: Federal Aid Secondary Project No. S-65, Bigfork-Southeast (2 May 1962), Plans housed at the Montana Department of Transportation, Helena, Montana; File: 95 (TS) Secondary 209; Montana State Highway Commission Meeting Minutes, book 18, p. 27 (29 July 1964).

7. Jon Axline, *Monuments Above the Water: Montana’s Historic Highway Bridges, 1860-1956* (Helena: Montana Department of Transportation, 1992), 73-76; Montana State Highway Commission Meeting Minutes, book 14, pp. 103, 104 (25 October 1957).

8. Bridge Plans & Quantities: Federal Aid Secondary Project No. S-65 (Big Fork – Southeast). Drawing No. 6073Q (2 May 1962).

9. Montana Secretary of State’s Business Entity Search, viewed at www.app.mt.gov/bes; United States Census Records; Montana State Highway Commission Meeting Minutes, 1956-1970; “Contractor Bud King Dies,” *The Missoulian*, 15 July 1992; “Hugh Gordon ‘Bud’ King,” *The Missoulian*, 15 July 1992.

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D. MISCELLANEOUS

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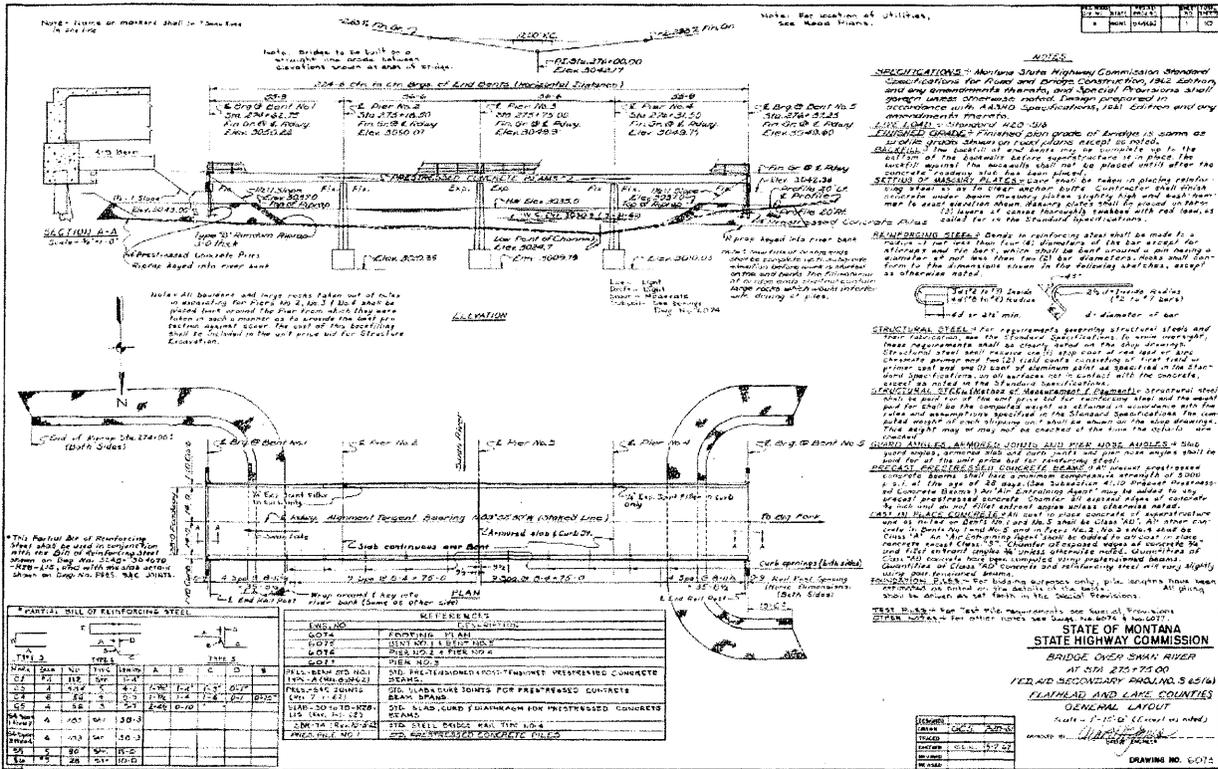
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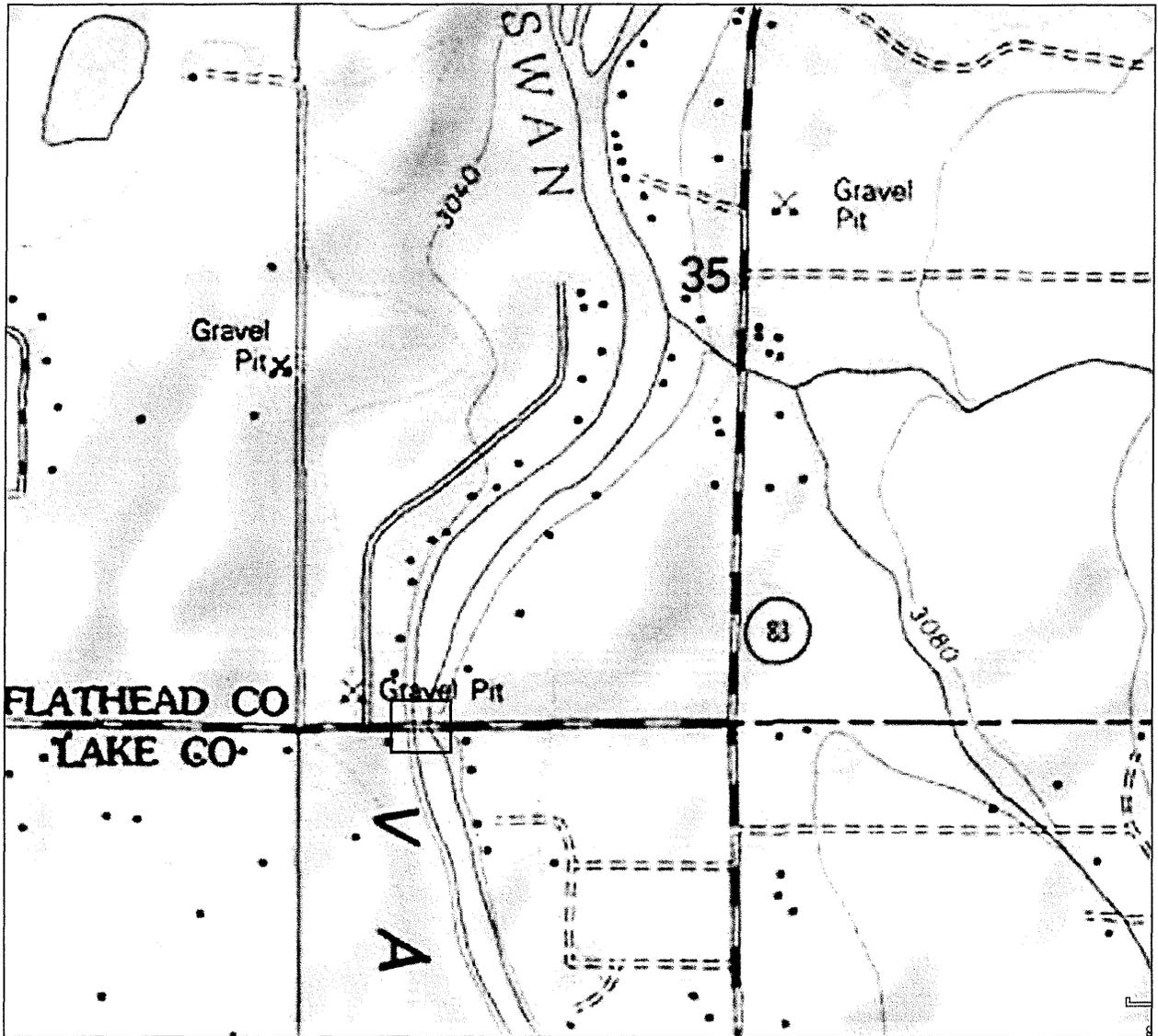
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