Yosemite's Bridges

A variety of vehicular bridges span the main streams and lesser tributaries in the park. The oldest is the covered bridge at Wawona, built as an open-deck structure in 1868 by Galen Clark, the first settler and state-appointed Guardian of the Yosemite Grant. In the 1870s it was converted to a covered bridge by the Washburn brothers, natives of Vermont, who supposedly had it altered to remind them of their home state. Rehabilitated by the Park Service in 1956, it can be seen today at the Pioneer Yosemite History Center.

Over the ensuing years more timber and iron trusses were built, but these eventually gave way to reinforced concrete structures; of the latter type, Sentinel Bridge (1919) and old Happy Isles Bridge (1921) remain. Many of the park bridges appear to be of solid stone-masonry construction. Actually, these arch bridges are concrete and merely faced with stone in the characteristic Rustic Style of architecture employed by the National Park Service.

Three park bridges built in the 1930s appear to be constructed of large logs, but are in fact built of steel and concrete. Native log siding conceals the modern structure from the visitor’s view. Most noticeable of these spans is El Capitan Bridge, built in 1933; other examples are found on Glacier Point Road and in Yosemite Creek Campground.

Three side tunnels or adits provide ventilation. The central adit contains three 8-foot diameter exhaust fans, activated by carbon dioxide detectors, to remove harmful gases. Photo by Brian C. Grogan, HAER, 1991.

Yosemite National Park, California

Yosemite Falls

Ahwahnee Hotel

Yosemite Lodge

El Capitan Bridge, 1933, was constructed of steel girders and a concrete deck. Large redwood logs were used to provide a rustic appearance. Drawn by Marie-Claude LeSauteur, US/ICOMOS, 1991.

Three recent structures, Vernal Creek Bridge on the Pachenal Trail and Streamside Bridge on the Mirror Lake Trail, are designed to interfere with natural flood designs.

Hand-cutting stone to be used as facing for many of the Yosemite Valley bridges, 1929. Granite was quarried from rock slides or boulders within the park, and sand was taken from riverbeds or borrow pits.

Motor stage on the El Portal Road passes through Arch Rock Entrance, 1920. Yosemite Research Library (YRL)

Two recent structures, Vernal Creek Bridge on the Pachenal Trail and Streamside Bridge on the Mirror Lake Trail, are designed to interfere with natural flood designs.
A Difficult Trek to Reach the Valley

"The road to Yosemite is not easy to travel; it is a journey of 163 miles, passing through forests and meadows, over streams and mountains." - Hiram Bingham, 1872

In 1864 the federal government established the Yosemite Grant, a national preserve administered by the State of California; the park's boundaries were extended in 1890. Mariposa and Big Oak Flat.

The journey was extremely difficult, however, with miles of travel over primitive trails, and often arriving too late to enjoy the glorious landscapes awaiting them.

Early Stage Travel

The new roads, however, were not always successful. The Tioga Road, built in 1856, faced opposition from Mariposa and Yosemite Counties. The new road was too steep and sharp for stagecoaches and covered with large rocks, making it difficult for passengers to travel. It also had to be built over the beautiful Yosemite Valley, which was considered a natural wonder and should be preserved.

Tioga Road Built and Abandoned

North of Yosemite Valley, the Great Sierra Consolidated Silver Mining Company began construction of a road to serve its mines. The "Zig Zag" on the old Big Oak Flat Road, built in 1874, is a fitting tribute to the engineering feats of the 1870s.

Yosemite Valley Rail Road

The "Byway" of the old Big Oak Flat Road, built in 1794.

With the construction of the new roads, invitations to the Valley increased, and by 1870, the first stagecoach arrived in the Valley. The stagecoach was a major engineering feat of the 1870s, and the carriages were built to transport passengers across the rugged terrain of the Yosemite Valley.

Automobiles and Yosemite

In 1890, the Yosemite Valley Rail Road was constructed along the river gorge inhibitied construction. It was not until 1907 that the Yosemite Valley Rail Road was completed.

National Park Service

In 1916, the National Park Service was established to manage the Yosemite Valley and the surrounding landscape. The park's boundaries were extended to Valley via the Yosemite Grant.

The "All-Year Highway" was completed in 1930, and in 1934-35 the spur road to Glacier Point was rebuilt.

All-Year Highway

In 1956, Yosemite National Park became a member of the National Park System. The BPR immediately commenced road improvements to Yosemite National Park, beginning with the paving of the park road. In 1990, Yosemite National Park was designated a World Heritage Site.

Caring for the Landscape

To minimize the effect of roads through the landscape, tunnels were constructed to carry heavy traffic loads, but to integrate into their natural settings. The roads were designed not only to carry heavy traffic, but also to allow for the preservation of Yosemite's natural beauty.

The fieldwork, measured drawings, histories, photography and this report show great care in constructing a modern road network that is compatible with the park's scenic qualities. To preserve the beauty of the park, the roads were designed to be as seamless as possible, with minimal impact on the natural environment.

The fieldwork documented by the National Park Service and the Bureau of Public Roads, conducted as a joint project with the National Park Service, was an important step in the preservation of Yosemite National Park.

The "All-Year Highway" was completed in 1930, and in 1934-35 the spur road to Glacier Point was rebuilt. The Yosemite Valley Rail Road was converted into a park motor road in 1925.