

Panther Creek Bridge

Klamath, California



The Panther Creek Bridge, a 168-foot hybrid tied arch structure on U.S. Route 101 near Klamath, California, is a striking blend of engineering innovation and environmental sensitivity. Featuring galvanized steel arch ribs and floor beams, paired with post-tensioned concrete tie beams, it marks California Department of Transportation's (Caltrans) first-ever use of hot-dip galvanizing for primary structural components in a bridge project.

The bridge spans Panther Pond, a critical habitat for Pacific coast salmon and other wetland species. Located on Yurok tribal land, the site is highly regulated, and environmental constraints—such as the prohibition on fixed platforms and temporary supports in the water—demanded an innovative approach. A carefully planned erection sequence met these immediate challenges, while the long-term strategy prioritized minimizing environmental

disruption. With coastal corrosion in mind, Caltrans opted for hot-dip galvanizing to ensure a service life of 100 years with minimal maintenance.

The galvanized steel is painted green to comprise a duplex coating system and enhance durability. The arch ribs are hollow box sections; the interior of the box is unpainted. The floor beams have very little clearance to the pond below. Galvanizing these relatively inaccessible surfaces was an important feature that won support for a steel bridge on the rainy North Coast of California.

Aesthetic considerations also played a key role in the design. Some components, such as the hangers and pedestrian railings, were left unpainted to showcase the raw zinc finish. The resulting understated gray and green color palette blends harmoniously with the surrounding natural beauty, echoing the region's misty skies and landscape. ■

In the Panther Creek Bridge, Caltrans and its partners are proud to have constructed California's first tied arch in several decades. Galvanizing was an important ingredient, ensuring the public will enjoy this sustainable, low-maintenance bridge for many decades to come.



Galvanizer

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Fabricator

Thompson Metal Fab Inc.

Engineer, Architect, Owner

California Department of Transportation

Other

Golden State Bridge, Inc.



American Galvanizers Association

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