



Mad River Slough

This multi-spanned precast prestressed concrete bridge is located 4 miles (6.4 km) south of Arcata, Humboldt County, California. The bridge consists of seven spans at 55 ft (16.8 m) and two spans at 54 ft (16.5 m) for an overall length of 493 ft (150 m). A total of 54 precast prestressed I-girders [3 ft x 50 ft to 60 ft (0.91 x 15 to 18 m)] were used; these rested upon precast prestressed pile bents.

The primary advantage in using precast girders on pile bents was stage construction. A portion of the existing bridge was removed to accommodate space for a portion of the new bridge to be constructed while traffic continued to move on the remaining half of the old bridge. Traffic was then moved to the completed half of the new bridge. The remainder of the old bridge was removed and construction was then completed on the remaining side of the new bridge.

The roadway is located in a tidal marsh where stream clearance is a major concern. Precast prestressed girders on precast prestressed pile bent caps were used to provide this clearance and to reduce the number of spans.

The project was completed in August 1981.

Credits

Owner, Architect and Engineer: California Department of Transportation, Office of Structures Design, Sacramento, California.

General Contractor: MCM Construction Co., Sacramento, California.

Manufacturer of Prestressed Units: Morse Bros. Prestress, Inc., Harrisburg, Oregon.