WP trains using new main line
Mileposts November-December 1962

Western Pacific freight and passenger trains began operation over a 23-mile stretch of new main line on October 22. Known as the Oroville line change, the new single-track railroad replaces about 27 miles of main line which has been in use by the railroad since its construction in the early 1900's. This section of the former main line through the lower region of the Feather River Canyon will eventually be inundated by water impounded by the Oroville dam.

The project is one of the largest of its kind in years, and the first of any major size on the Western Pacific since construction of the railroad. Completion of the $45 million State of California financed project brought to a close some 13 years of locating, surveying, planning, negotiating and constructing.

The new line departs from the former main line a few hundred yards north of W P's passenger station in Oroville which is some five miles downstream from the Oroville dam site. It then negotiates a wide swing to the west around Table Mountain before again turning north and eventually rejoining the existing main line along the North Fork of the Feather River at Intake, about Milepost 232.

During the first few miles beyond Oroville, as the train sweeps around Table Mountain, there are several locations where passengers have a sweeping panorama of Sacramento valley which stretches out for miles south of Oroville. As the train passes through ranch country it crosses over a 33-inch siphon carrying water from the Miocene Canal to the California Water Service reservoir on the left of the tracks. At one point in the rolling hill country can be seen the Berkeley Olive Association grove, one of the largest and most productive olive groves in Northern California.

Nearby is Kramm, the first of three sidings on the new line, 7,047 feet in length, named for A. A. Kramm, retired assistant engineer. "Gus" at one time or another worked on just about every mile of the railroad, and he was the first locating engineer engaged in the Oroville line change, as accomplished at this third relocation attempt. In the early 1940's "Gus" ran a stadia survey over approximately the same route of the present new line.

The second siding, 7,147 feet in length, is named Elsey, in honor of the late Charles Elsey, who retired as president of the railroad in December, 1948. James, the longest of the three sidings, 7,277 feet in length, was named for Arthur Curtiss James, probably the last of the great railroad financial giants who added control of the Western Pacific to his other large railroad holdings in 1926. James died in 1941.

The Oroville dam will not be visible from anywhere on the railroad. However, in two or more years after the dam is completed, passengers will have an unobstructed view of a large body of backwater as the train crosses the high and long West Branch Bridge. It is estimated that it will take that long before the deep canyon below this bridge is completely filled with water.

U. S. Highway 40-A, which parallels the new railroad along a portion of the new route, offers motorists several vantage points for scenic panorama views and pictures. Photographers interested in train pictures have one excellent viewpoint at the Pentz overpass, and just a short distance away at Cherokee overpass about 13 miles from Oroville. Here the railroad passes immediately below the highway, makes a sweep around a long "S" curve, passes through Tunnel 4 behind a hill, and then emerges around another long and graceful curve before again passing beneath the highway. This provides an opportunity to obtain several pictures of one passing train. Another excellent location for train pictures is at the West Branch Bridge where the railroad passes through a deep cut adjacent to the highway just before approaching the bridge. There are several other vantage points for photographers, although getting there requires considerable knowledge of access roads, a few of which are not recommended for travel by passenger automobiles.

To maintain Western Pacific's maximum grade of 1% compensated, and a maximum 4-degree 30-minute maximum curvature, it was necessary to resort to a number of tunnels, high bridges, deep cuts, high fills, and several meandering curves.

The five tunnels, numbered from 4 to 8, range in length from 2,750 feet (No. 4) to 8,856 feet (No. 8). All are concentrated in the northerly portion of the new line where it makes several crossings with tributaries of the Feather River. All tunnels are concrete lined.

The first of four bridges crosses the Feather River a short distance beyond the point where the new line leaves WP's existing line just beyond Oroville. Here the Feather River Bridge crosses an afterbay in which the water will be up to 110 feet deep. The main span is 128 feet long. Total length of the bridge is 1,108 feet, all on a 3-degree curve, and the spans are carried on circular piers with "T" heads to support the girders. For a few years Vista-Dome passengers will be able to see from this bridge to the right an engineering project of the old mining days. It's the "Old Chinese Wall," a source of local legends, built by a mining enterprise to divert the river back in the 1890's. The old wall will be covered by water upon completion of the Thermalito Diversion Dam, a part of the Feather River Project.

The West Branch Bridge farther north carries the relocated line and a highway across the Feather River's west branch on separate levels. The upper level is occupied by U.S. Highway 40-A, one of the major highway routes through the Sierra Nevada.

This cantilever bridge spans the canyon about 400 feet above the stream-bed, although the future water line will be only about 40 feet below the railroad track on the lower deck. The $9 million structure has a main span of about 575 feet, anchor spans 432 feet in length, and a 360-foot simple span at the south end.

Dark Canyon Bridge, between Tunnels 7 and 8, is a 65-foot long filled spandrel reinforced concrete arch span, the shortest of the four bridges.

The most picturesque of the four bridges is located at the extreme northerly end of the new line, spanning the North Fork of the Feather River at Intake. Here the line emerges from the north portal of Tunnel 8 and passes almost immediately onto the North Fork Bridge. After crossing this bridge eastbound, and before approaching the bridge westbound, passengers will have a fine view of this artistic structure as the train rounds a long curve. The location is rather difficult to get to by other means of transportation. The structure is an open-spandrel reinforced concrete arch with a main span of 308 feet in length. Total length of the bridge, including approach spans, is nearly 1,000 feet. It is believed to be the longest railroad reinforced concrete arch structure in the United States. Height from base of rail to the river bottom is about 200 feet.

To maintain W P's required grade, extremely heavy grading was required at some locations. There are cuts having a maximum depth of 218 feet at the center line. Fills range up to 265 feet in height and excavation totaled more than six million cubic yards, most of it in rock.

One point of interest, particularly to operating employees, concerns the change in mileage over the new and old lines between Oroville and Intake. Milepost sign 205 will remain at the west end of the Oroville passenger station. Mileposts 206, 207, 208 and 209 presently along the old line will eventually be covered by water. Since the new line is four miles shorter than the old line, the next milepost sign east of Milepost 205 on the new line is now Milepost 210. It is located just east of the Feather River Bridge.