

# Tunnels

## Metropolitan Water District Aqueduct Tunnel

—Construction of the San Jacinto Tunnel will be the first contract advertised by the Metropolitan Water District and advertising for bids on this work will start within the next ten days or two weeks, according to an announcement by F. E. Weymouth, Chief Engineer and General Manager of the District.

This tunnel will traverse the San Jacinto Mountains the west portal being approximately 3 miles due north of the town of San Jacinto while the east portal will be at a point about 2 miles south of Cabazon on the state highway between Banning and Whitewater. The total length of the tunnel will be 67,408 ft. in length, with a length of 40,000 ft. between the adits at Cabazon and Potrero, the latter approximately  $3\frac{1}{2}$  miles east of the west portal. The Cabazon Adit will be 1500 ft. in length and the Potrero Adit 2600 ft. The contractor will have the option to build a shaft in lieu of the adit at the Potrero location. The shaft will be approximately 750 ft. in depth. The west portal elevation will be 1500 ft. with a drop in tunnel grade of triple naught 65. The tunnel will have a diameter of 16 ft. with a horseshoe section with concrete lining using steel forms. The floor will be of concrete but will not be laid in the form.

The untimbered section of the tunnel will involve about 10.76 yds. excavation per lin. ft. and 2.8 cu. yds. concrete per lin. ft. The timbered section will involve 12.95 cu. yds. excavation and 3.39 cu. yds. concrete per lin. ft.

The approximate quantities for the complete tunnel are as follows:

750,000 cu. yds. excavation, all rock;

195,000 cu. yds. concrete lining, pneumatically placed behind steel forms;

2,250,000 B. ft. timber (supplied by contractor);

500,000 lbs. steel support (placing only);

500,000 lbs. reinforcing steel (placing only).

The district will furnish Portland cement and steel. The work will require about  $1\frac{1}{4}$  bbls. cement to the cubic yard.

Bids will be taken on three Schedules, viz.:

Schedule No. 1, for the tunnel as a whole.

Schedule No. 2, for the construction of the east portion of the tunnel.

Schedule No. 3, for the west portion of the tunnel.

Each of the west and east portions will be approximately one-half of the complete tunnel, but there will be about 2500 ft. of no man's land in between the center termini. The contractor will be permitted to bid on all or any one of the three schedules. The time for the completion will be 69 months.

A meeting of the district directors will be held Friday, Sept. 23, at 2 p. m. to consider and adopt a prevailing wage scale for the proposed advertisements.

In addition to the tunnel contract work, the district will build a power transmission line, using wood poles, between Colton and Cabazon, and will construct various water pipe lines with pumping equipment for work planned east of the east portal. Engineers state that ample water is available for the tunnel construction.