

# Boulder Section of L. A. Power And Light Transmission Line 3-4 Done

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With the Boulder City section of the Los Angeles Bureau of Power and Light's transmission line to carry power from the dynamo of Boulder dam for consumption in Los Angeles 75 per cent completed, some idea must be given of the magnitude of the line.

The work of constructing the power line has been divided into sections. The camps, from Cajon

Pass east, are located at approximately 30 mile intervals. A camp has been constructed at Cozy Dell, another at Victorville, and camps at Harvard, Silver Lake, Kingston Valley, in California, and at Jean and Boulder City, in Nevada. The general headquarters for these camps has been located at Yermo.

Between Boulder dam and a point just west of the famous Ca-

jon Pass, which is a total distance of 230 miles, 2411 steel towers to support the cable, each approximately 109 feet in height, are being erected. Over 1100 are now in place. In the Boulder section, work is now being started on the most difficult part, which is the last three mile stretch. The towers of this section will not be of the conventional type used along the line elsewhere, due to the rugged terrain of the country. The road, which follows the course of the power line, is particularly difficult to construct in this area, according to A. P. Cox, superintendent of the Boulder camp.

The cable, made of high grade copper, looks not unlike a large hollow tube, and has an outside diameter of 1.4 inches. It consists of ten interlocking spiral sections. The cable, the largest ever used for this purpose in the United States, will be able to carry a "load" of 275,000 volts, the largest voltage ever carried over a great distance. The highest voltage carried previous to this line has never exceeded 230,000 volts. Metal for the manufacture of this new departure cable comes from the mines of Nevada, Arizona, and Utah. A firm for its manufacture has established a permanent plant in Los Angeles under the firm name of General Cable Corporation.

The total number of towers to support the cables between the Boulder dam and Los Angeles is 2682. They are being manufactured of heavy structural steel in Los Angeles. The combined weight of all the towers will be 26,457 tons.

Overhead ground wires will be strung along the tops of the steel structures, to carry lightning charges into the earth. A double row of ¼-inch ground wires will be buried beneath the high powered transmission line, and will be connected by cross-ties to each tower. These wires will be placed by a machine which digs the trench and lays the wires automatically all in one operation, and are now being installed on various sections of the line.

The cable to carry the transmission cable will be suspended from insulators measuring 10 to 10½ inches in diameter. There will be 253,700 of these insulators placed along the line.