

## DESIGN OFFICE

Design and preparation of plans for a number of bridges for the Main Highways Board were undertaken during the year in the Chief Designing Engineer's Office. The bridge over the Wanganui River at Manunui having failed, plans of a new reinforced-concrete structure 392 ft. long have been prepared. Construction of this structure will be proceeded with as soon as possible in order to release the Bailey bridge now in use at the old bridge site.

Other bridges for which plans were completed include the Ohura Bridge of 220 ft. length on the Te Kuiti—New Plymouth State Highway, and the Ararawa Bridge of 182 ft. length on the National Park—Wanganui State Highway.

Bridge designs in hand include a bridge over the Whirinaki River at Te Whaiti for the State Forest Service, and a suspension bridge of 250 ft. span over the Ruakituri River on the Erepiti Road in Wairoa County.

Preliminary designs have been made for the Petone Overbridge and for the bridge over the Piako River at Pipiroa.

A series of standard plans of three-span continuous bridges is nearing completion. Several new standard specifications have been prepared.

Numerous bridge proposals have been received from District Offices, County Councils, and consulting engineers for examination and approval. Many proposals for water-supply, sewerage, storm-water drainage, and bridge and street works have been examined and approved for the Local Government Loans Board.

Designs and plans of bridges have been prepared for the Island Territories Department for works in Samoa.

Design and plans for steel forms for the tunnel at the Cobb hydro-electric scheme have been prepared and preliminary work has been done on design of steel forms for the Rimutaka Railway tunnel.

Other work includes designs and plans for several small sewage-treatment plants for Government institutions, &c., and plans of a number of units for use in such plants in future.

Designs of two water-supply pumping-stations for mental hospitals have also been done.

Designs for various features of the Wellington water-supply scheme—intake weir, &c.—were checked.

Further work was done for the Soil Conservation and Rivers Control Council in the preparation of specifications, &c., for the manufacture of steelwork, &c., for current meter-gauging stations and runoff-measuring equipment for experimental stations.

The Sydney radio-telephone array at Tinakori has been completely redesigned structurally for the Post and Telegraph Department, and a preliminary structural design of the arrays at Himatangi Radio Station has been prepared.

F. LANGBEIN, M.I.C.E.,  
Engineer-in-Chief.

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