

## RELIEF WORKS.

As previously mentioned in this report under finance, the Board has endeavoured to assist the Government and local authorities as far as possible in relieving the unfortunate unemployment which has been evident during the past two years. Works of appreciable magnitude have been commenced in a number of districts, the most important being the Bombay Hills deviation on the Auckland-Wellington Main Highway, the Kaimai section of the Matamata-Tauranga Main Highway, the Johnsonville-Porirua section of the Wellington-Auckland Main Highway, the Rimutaka Hill section of the Wellington-Napier Main Highway, the Gisborne-Wairoa via Hangaroa Main Highway, the Te Kuiti-Bull's via Taumarunui Main Highway, the Waitati-Merton section of the Dunedin-Christchurch Main Highway, the Dunedin-Portobello Main Highway, and the Balclutha-Tuapeka Mouth Main Highway. On these works an average number of six hundred relief workers have been employed.

## PURCHASE OF PLANT.

The policy of purchasing and hiring plant on the hire-purchase system to local authorities has been continued, and considerable further advantage has been taken of the scheme—in fact, the Board regards it as one of the most useful and helpful phases of its operations. The total value of plant now on hire-purchase to local authorities is £59,922.

The following statement shows the plant ordered and hired to local authorities from the 31st March, 1926, to the 31st March, 1927, the amount involved being £29,151: Road-rollers, 4; one-man-power graders, 12; ordinary road-graders, 3; crushers, 3; motor-lorries, 14; tractors, 3; bitumen-heater, 1; bitumen-sprayer, 1; water-cart, 1; conveyors, 3; elevator, 1; electric motors, 2; and a number of minor items.

In addition to the above, the Board has purchased the following plant for its own use at a total cost of £12,792: Road-roller, 1; one-man-power graders, 4; ordinary road-grader, 1; crusher, 1; motor-lorries, 7; traction-engine, 1; tractors, 4; bitumen-heaters, 2; bitumen-sprayers, 2; air-compressors, 3; concrete-mixers, 2; road-sweeper, 1; oil-driven excavator, 1; and a number of minor items.

## ELIMINATION OF RAILWAY-CROSSINGS.

In last year's report it was intimated that a mutually satisfactory programme of railway-crossing eliminations had been arranged between this Board and the Railway Department. It was left to the Main Highways Board to obtain from the local authorities concerned such contributions as were considered to be commensurate with the local interest. Negotiations have proceeded in connection with a number of crossings which were selected as being the most urgent cases for elimination, and contributions ranging from 5 per cent. to 30 per cent. of the total cost have been obtained from the local authorities. Where satisfactory arrangements have been completed work has been proceeded with. The elimination of the following crossings is in hand:—

Auckland-Wellington via Taranaki Main Highway: Crossing at Turakina.

Wellington-Napier via Wairarapa Main Highway: Crossings at Piripiri and Matahiwi Hill.

Blenheim-Christchurch via Parnassus: Crossing at Weka Pass.

Schemes and detailed plans have been prepared for the elimination of the following crossings:—

Auckland-Wellington via Taranaki Main Highway: Crossings at Porirua, Hawera, and Paraparaumu.

Dunedin-Christchurch Main Highway: Crossing at Tumai.

## ROAD-SIGNS.

In last year's report the Board intimated that it had decided to subsidize the cost of erection of road-signs by local authorities and automobile associations to the extent of £1 for £1. It is gratifying to note that automobile associations are taking advantage of the Board's subsidy, with appreciable benefits to the travelling public.

County boundary signs have been erected by the local authorities concerned in many parts of the Dominion in accordance with a design prepared by the Board and with the assistance of the Board's subsidy.

## TESTING OF HIGHWAY MATERIALS.

The Petrological Laboratory has continued to carry out the standard tests on roadmaking materials. Table 6 shows the results of the year's operations. In addition, the usual granulometric analyses of gravels and sands were undertaken. The testing of samples of tar, bitumen, and bituminous concrete was carried out as usual by the Dominion Analyst, Wellington.

## EXAMINATION OF FOREMEN AND OVERSEERS EMPLOYED ON ROAD-CONSTRUCTION.

A second examination of foremen and overseers for the purpose of issuing certificates of competency was held on the 14th January, 1927. Forty-eight candidates sat for the examination, out of which six obtained a complete pass, and eight a partial pass. Certificates have now been issued to the following successful candidates: P. S. Finlayson, W. J. Hawkes, O. G. Hewison, J. H. Kendall, B. L. Larson, R. M. Lankshear, J. G. Mahood, O. R. Marshall, F. F. Maynard, J. G. McIvor, F. Muggeridge, H. J. L. Wotten.

## PROGRESS REPORT.

The following statement shows the more important construction work carried out under the control of the Main Highways Board during the year ended 31st March, 1927:—

*Broadwood-Kaitia.*—The unmetalled section between Herekino and Kaitia has been metalled during the year.