

CONSTRUCTION AND MAINTENANCE OF ROADS AND BRIDGES.

Huehue-Waimatenui (Bay of Islands County).—Widening to 18 ft. has been carried out on this road, covering a total distance of 3 m. 30 ch. Rock from excavations has been used as a base course for metalling 12 ft. 6 in. Two rolled-steel joists and mixed Australian hardwood bridges, one comprising six 40 ft. spans and the other four 40 ft. spans, have been erected. Relief work has been carried out on this road.

Kawakawa - Opuia Road : Whangae Deviation (Bay of Islands County).—Engineering survey of 2 m. 68 ch., and formation 3 m. 56 ch. 16 ft. wide, including culverting, have been done.

Russell-Manawara (Bay of Islands County).—Widening from 12 ft. to 18 ft. over a distance of 8 m., and metalling 12 ft. by 6 in over the same distance, has been completed by relief work. Two bridges were renewed in New Zealand timbers.

Waikare - Kawakawa Road (Bay of Islands County).—Road has been widened over a distance of 10 ch. from 10 ft. to 15 ft. by relief workers. Four bridges—namely, Karetu, Waikare, Waihaha, and Burling's—totalling 250 ft., have been erected in mixed Australian hardwood on hardwood piles and rolled-steel joists.

Te Kuri Block Road (Hobson County).—An engineering survey has been completed over 9 m. 32 ch. of road, and 7 m. 40 ch. 14 ft. formation has also been completed. Relief work has been carried out on this road.

Giles Road (Hokianga County).—Engineering survey of 4 m., 3 m. 26 ch. 16 ft. formation, including culverting, have been completed by relief work.

Iwitaia Road (Hokianga County).—Through connection made between Mangamuka and Otongaroa. 2,300 cub. yd. of limestone has been knapped along formation as a base course, 2 m 50 ch. being treated in this manner.

Jensen's Road (Hokianga County).—1 m. of road 16 ft. wide has been formed and culverted. Metalling 9 ft. by 6 in. over a length of 2 m. 40 ch. has been completed. Relief work has been carried out on this road.

Mangamuka - Victoria Valley (Hokianga and Mangonui Counties).—Work on this road includes widening of corners, removal of slips, and the placing of 3,080 cub. yd. of shingle to bring the road up to standard in readiness for handing over to the Main Highways. Relief work was carried out on this road.

Mohuiri-Broadwood (Hokianga County).—Widening to 18 ft. and culverting for a distance of 2 m. 24 ch. have been completed. Borings have been taken in connection with three proposed bridge-sites.

Omahuta Block Road (Hokianga County).—Formation 16 ft. wide and culverting over a length of 5 m. have been completed, and 2 m. 10 c. of metalling has been laid by relief workers. The erection of two bridges—one 40 ft. span and one 20 ft. span motor design in rolled-steel joists, mixed Australian hardwood and hardwood piles—is in hand.

West Coast Road : Tapuwaehakara (Hokianga County).—Formation 18 ft. wide and culverting over a distance of 1 m. 21 ch. have been completed by relief work. The erection of the Tupawae Bridge, which consists of five 40 ft. spans in rolled-steel joists, mixed Australian hardwood and hardwood piles, is well in hand.

Herekino-Whangape (Mangonui County).—During the year an engineering survey of 4 m. 40 ch. was completed, and formation 18 ft. wide over this length has also been done by relief workers. Metalling operations are now in hand.

Kaingarua-Fairburn's (Mangonui County).—20 ch. of formation 18 ft. wide, and four bridges, totalling 290 ft., in rolled-steel joists, mixed Australian hardwood and hardwood piles, together with necessary approaches, completed.

Kohumaru Road (Mangonui County).—Work on this road during the year consists of an engineering survey over 8 m. 3 m. 42 ch. formation 18 ft. wide and 2 m. 41 ch. rock base course in preparation for metalling have been done by relief work.

Oruru - Fern Flat - Mangamuka (Mangonui County).—This road has been culverted throughout, and numerous points cut back. Rock base course in preparation for metalling has been laid over a length of 2 m.

Waipapakauri-Tangoake (Mangonui County).—Reconditioning has been effected over a total length of 18 m., and low-lying swampy patches improved by relief labour. One new bridge 12 ft. long has been constructed in New Zealand timbers, and five bridges reconditioned.

Kirikapa-Ngunguru (Whangarei County).—Slips have been cleared over the whole length of road by relief workers, and the erection of the Waitohi Bridge, four 40 ft. spans in rolled-steel joists, reinforced-concrete piles, and mixed Australian hardwood, has been completed.

Matapouri-Marua (Whangarei County).—An engineering survey over a distance of 8 m. 56 ch. completed, and road has been widened to 18 ft. over this distance. A good deal of rock has been spread over the road as a base course for metalling. Erection of three bridges, totalling 110 ft., in rolled-steel joists, and reinforced-concrete piles, mixed Australian hardwood, is in hand. Relief workers have been employed on this road.

Ngunguru-Tutukaka (Whangarei County).—3 m. 2 ch. engineering survey, 3 m. 2 ch. widening to 18 ft., and culverting completed by relief workers. Erection of two bridges, each of one 40 ft. span, rolled-steel joists, and reinforced concrete, completed; approaches in hand.

Russell-Whangaruru (Whangarei County).—13 m. of 9 ft. by 3 in. top-course metalling completed by relief workers.

Tokatoka-Mangapai (Whangarei County).—Engineering survey for 12 m. 16 ch. Widening to 18 ft., including culverting over 9 m. 60 ch., have been completed by relief workers. Erection of bridge over Mangonui River, comprising six 40 ft. spans in rolled-steel joists and reinforced concrete, in hand.