

SURVEYS OF RAILWAYS UNDER CONSTRUCTION, NEW LINES OF RAILWAY, ETC.

NORTH ISLAND MAIN TRUNK RAILWAY.

Mareretu Section.—Trial-line surveys of three alternative tunnel routes and deviations were run, and permanent pegging and plans of the approved deviation has been completed.

Shelly Beach Branch.—A flying survey of various routes between Helensville and Shelly Beach, a distance of about 12 miles, was made to ascertain the possibilities as regard route and cost of constructing a branch line to the southern end of Kaipara Harbour.

WAIKOKOWAI BRANCH RAILWAY.

The permanent-line survey has been completed from 0 m. to 8 m. 21 ch., and plans have been prepared.

EAST COAST MAIN TRUNK RAILWAY.

Waihi Eastwards.—Land-plan surveys were completed from 4 m. to 12 m., trial surveys were run between 15 m. and 18 m., and a permanent deviation pegged, 14 m. and 15 m.

Tauranga Westwards.—Land-plan surveys were completed from 36 m. 32 ch. to 39 m. 27 ch. Further trial lines were run between Waipapa Stream and the Wairoa River, and a permanent location determined on. Permanent pegging has been completed from 31 m. to 35 m.

Tauranga Eastwards.—Land-plan surveys have been made from 83 m. to 91 m. 20 ch. Permanent pegging has been completed between 94 m. 40 ch. and 97 m. 40 ch. Trial lines were run from 98 m. to 99 m. 77 ch. via upper crossing over Whakatane River. A further trial line through the Waimana Gorge has been pegged and levelled from 100 m. 16 ch. to 104 m. 66 ch.

Gisborne-Napier (South End).

Tutira Section.—Permanent-line survey has been completed from 14 m. to 30 m., including trial lines and road surveys.

WHAKATANE BRANCH RAILWAY.

Trial survey was completed to 7 m. 50 ch., and a length of 4 miles 10 chains was permanently pegged. A number of trial surveys were also made in connection with the Katikati milling proposal.

STRATFORD MAIN TRUNK RAILWAY.

Heao Section.—The permanent survey was completed to 54 m.

Te Wera Ballast-pit.—Trial surveys have been made for a branch line to tap a new shell-rock ballast-pit at Te Wera.

WELLINGTON-NAPIER RAILWAY.

Rimutaka Deviation.—Various trial lines have been run, old lines picked up, and general information obtained from which a definite location may be made.

LAWRENCE-ROXBURGH RAILWAY.

Beaumont - Miller's Flat Section.—Trial surveys were run from 34 m. 70 ch. to 47 m. 26 ch., and permanent location and pegging was completed to 40 m.

BALCLUTHA - TUAPEKA MOUTH RAILWAY.

Lovell's Flat - Hillend Section.—Trial survey was completed from 0 m. to 10 m. 11 ch., and plans were prepared.

CONSTRUCTION, MAINTENANCE, AND SUPERVISION OF ROADS AND BRIDGES.

During the year there has been greater activity and greater expenditure on roads and bridges than has been the case for several years past. The principal works, as well as those on which the largest expenditure has been incurred, are as under :—

WHANGAREI DISTRICT.

Mangamaku to Victoria Valley.—3 miles 48 chains of widening and 28 chains new formation, together with construction of 440 lineal feet of culverts, have been carried out on this important link in the Great North Road. These works have been partly carried out by relief labour.

Awakino Valley to Dargaville.—2 miles 40 chains dray-road formation almost completed, and 3 miles additional put in hand.

Tangowahine Valley Road.—1½ miles formation, 2 miles metalling, and 240 lineal feet bridging completed.

Maungatapere to Tangiteroria.—1 mile heavy formation completed.

AUCKLAND DISTRICT.

Ohinemuri River Bridge, Waihi.—Bridge, consisting of four 25 ft. and one 61 ft. span, in hardwood on concrete piers, completed.

Waikato River Bridge, Horotiu.—Bridge, consisting of 126 ft. central arch, three-hinged, and in concrete, together with six 21 ft. approach spans, all in concrete, has been completed, and will be open for traffic as soon as the approaches are finished.

Waipa River Bridge, Ngauruahia.—Bridge, consisting of three 110 ft. and two 25 ft. end spans, in hardwood, and on hardwood pile piers, in hand.

Waikato River Bridge.—Bridge, consisting of three 123 ft., one 43 ft., and one 20 ft. span, completed; total length, 436 ft. The two river piers are on 6 ft. concrete cylinders sunk 37 ft. below normal water-level; other piers are of reinforced concrete on concrete piling. Superstructure is of Australian hardwood timber.

Engineering Surveys.—Engineering surveys have been carried out at Bombay and Rangiriri Hills.