33 D—1

APPENDIX C

ANNUAL REPORT ON PUBLIC WORKS BY THE ENGINEER-IN-CHIEF

The Engineer-in-Chief to the Hon. the Minister of Works. Sir,—

I have the honour to submit the following report upon the various works completed and in progress throughout the Dominion during the year ended 31st March, 1948.

RAILWAYS: CONSTRUCTION AND SURVEY

Auckland-Morningside Deviation and Auckland Waterfront Railway.—Preliminary investigations for the Auckland-Morningside Deviation were concluded and preliminary investigations and surveys for a route between Auckland and Kumeu via the waterfront have now been completed.

Edgecumbe-Murupara Railway.—A trial survey for a railway branching off the East Coast Main Trunk Railway at Edgecumbe, and following the Rangitaiki River valley to Murupara, was started in December. The line will be 39 miles long. Fieldwork is complete, including a possible deviation from the trial line, and paper location is in hand.

Results of the survey indicate that construction is feasible within the permitted curvature and maximum gradient. However, there would be very heavy earthworks and some bridging.

Putaruru-Reporoa Railway.—The trial survey between Putaruru and Tokoroa ($18\frac{3}{4}$ miles) is complete; and the route has been fixed and the permanent alignment pegged. The permanent-line plans are being prepared.

Pending construction of the new railway between Putaruru and Tokoroa, the Public Works Department has taken over the old tramway from the Taupo-Totara Timber Co. and is operating a through freight service in collaboration with the Railways Department. The track has been improved and ballasted as necessary, and has been maintained throughout the year.

Turakina-Okoia Deviation.—Relining and grouting of the Fordell Tunnel was completed during the year, and the Railways Department completed platelaying and ballasting; they also installed the signal system. On the 7th December, 1947, the deviation was opened to traffic.

Rimutaka Deviation.—Surveys in an endeavour to find the most satisfactory route were continued; the preliminary field-work is now complete. The search has been an exhaustive one, but it narrowed down the choice to six alternative routes. By the end of the year the Commissioner of Works, in consultation with the General Manager, Railways Department, approved No. 5 route as the most suitable.

The distance between Upper Hutt and Featherston by No. 5 route will be 15 miles 32 chains, as against the present distance of 24 miles 65 chains. The main tunnel will be 5.45 miles in length. The ruling gradient outside the tunnel in both directions will be 1 in 70, and gradients in the tunnel will be 1 in 300 rising from the west portal and 1 in 211 rising from the east portal.