

Russell : Concrete Wharf.	Kawhia : Wharf.
Whangaroa : Concrete wharf.	Elmslie Bay : Wharf.
Kaikoura : Improvements to boat-harbour.	Mokau : River improvement.
Bruce Bay : Landing-crane and approach bridge.	Collingwood : Wharf.
Stewart Island : New wharf.	Rawene : Launch-landings.
One Tree Point : New wharf.	Chatham Islands : Surveys and harbour investigations generally.
Kawau Point : New wharf.	Kawakawa Bay : Wharf.
Kaipara Point : Wharf.	Little Wanganui : Wharf.
Pahea Point : Wharf.	Manaroa, Pelorous Sound : Wharf.
Naumai : Wharf.	Matakawa : Wharf, &c.
Miranda : Wharf.	Karaka Point : Wharf.
	Opunake : Harbour improvements.

### RAILWAYS IMPROVEMENT.

In accordance with the Railway Department's policy of improving main-trunk lines, deviations at Auckland (extending to Westfield), Wellington (extending to Tawa Flat), and Palmerston North—a length of 6 $\frac{3}{4}$  miles—were decided upon.

These deviations, which involve heavy work, with a double-track line and considerable tunnelling, will have the effect of greatly facilitating the heavy traffic to be dealt with at the respective points, by the reduction in grade, the improvement in curvature, and the providing for two-way traffic.

The work of construction was taken in hand by the Public Works Department, and is now well advanced, as indicated by the details following:—

#### PALMERSTON NORTH DEVIATION.

(Length, 6 miles 66 chains.)

The purpose of this deviation was to keep the railway-line clear of the Town of Palmerston North, and it has also the effect of straightening the main line and decreasing the length by about a mile.

Preliminary work was started on a small scale in 1926, and this work has gone on steadily since that date. One of the main features of this deviation is the construction of seven reinforced-concrete overbridges, which, owing to the flat nature of the country, involve expensive approaches.

The deviation was about one-fourth complete on the 31st March last.

The expenditure to date is £103,801. Final estimated cost is not at present available, as a number of details are not yet finally settled in regard to lay-out of station-yards, &c.

#### TAWA FLAT DEVIATION.

(Length, 7 miles 40 chains.)

The object of this deviation is to cut out the heavy grades between Wellington and Johnsonville. The deviation leaves the Wellington-Wairarapa line at 1 mile 70 chains near Kaiwarra, and joins the Wellington - New Plymouth line at 11 miles 45 chains from Wellington.

Work was commenced in July, 1927, to open up No. 1 tunnel, after which the driving of the lower heading was let to a private contractor. The south end of this heading was later taken over by the Department, the contractor continuing to work the north end.

Several bridges are in course of construction, and No. 2 tunnel is being opened up at the north end, and preparations are being made by sinking a shaft to allow four faces to be worked simultaneously.

The estimated cost of completion is £1,010,000, and the expenditure to date is approximately £153,961.

#### AUCKLAND-WESTFIELD DEVIATION.

This deviation, 8 miles 70 chains in length, was commenced in 1925. Formation is at present almost complete, the only work still to be completed being the trimming and widening of cuttings, &c.

Platelaying has just been commenced, about 30 chains of rails having been laid.

On this section, apart from the general formation, the construction of the Purewa Tunnel, with a total length of 1,954 ft., the building of approximately 2 miles of embankment across Judges Bay and the Orakei Basin, with bridges totalling 380 ft., were important works.

The expenditure to 31st October on this line is £502,081, and the estimated cost to complete it is £113,000, excluding rails, sleepers, fastenings, &c., which is being defrayed by the Railway Department direct.