

has been of great service to the district. Construction work on this length, 19 miles long, is now practically complete. Earthwork on the following (Tokirima) section has made good progress, and tunnelling is in hand, the Mangatatawa Tunnel, $7\frac{3}{4}$ chains long, being complete, and a start made with bottom heading of the Mahorahora Tunnel.

On the western end of this railway most of the work has been concentrated on the Heao Section. No. 1 Tunnel, $30\frac{1}{2}$ chains long, was completed last March, and at No. 2 Tunnel, $54\frac{1}{2}$ chains long, a total length of 25 chains is complete. A substantial start has also been made at No. 3 Tunnel. Very good progress has also been made with the earthwork on the west end of this railway, and the work generally has been much facilitated, in what is really difficult country, by the provision of power-operated inclines over the rough ridges, and by the provision of electric energy derived from a steam electric-power station.

Palmerston North Railway Deviation.—This work, which had been started on a small scale in the preceding year, made good progress last year. The deviation, $6\frac{3}{4}$ miles long, involves heavy earthwork, for, though the country is very easy undulating in character, the areas required for passenger and goods yards are very extensive, involving heavy cut and fill. This earthwork is now one-fourth complete. The overbridge-construction necessary to carry road-crossings over the railway-deviation is on an elaborate scale, and of these bridges that on Milson's line, making provision for crossing eleven tracks, is complete.

Wellington—Tawa Flat Railway Deviation.—This railway, of total length of $7\frac{1}{2}$ miles, is being constructed for through traffic to avoid the very excessive and unfavourable grades on the existing line through Khandallah and Johnsonville. The maximum grades on the deviation will be 1 in 110 against traffic out of Wellington, and 1 in 100 against traffic into Wellington, compared with grades of 1 in 40 on the existing line. In addition, the new line will reduce the through distance by $2\frac{1}{2}$ miles, and will cut out a great deal of unfavourable curvature. The 1924 report of the Hon. the Minister for Railways on the programme of improvements and new works shows that this deviation would pay interest and show a profit immediately it is constructed.

The work of constructing the Tawa Flat Deviation was put in hand during the past year. Its most important feature is the $3\frac{1}{2}$ miles of double-track railway-tunnel required. Tenders were called for this work in New Zealand and abroad. The tenders received were unfavourable and much in excess of the Department's estimate, and it was thereon decided that the work would be carried out by the Department. Special tunnelling plant has been ordered, and most of it should be to hand by the end of October. In the meantime No. 1 Tunnel is being opened up by a bottom heading at each end, and enlargement and lining is proceeding at the south end, all under the co-operative system. At the No. 2 Tunnel, 2 miles 54 chains long, preliminary work is being pushed on with a view to commencing work underground.

Considerable bridge-work has been done, including the completion of piers for the Hutt Road Bridge, while the railway-bridge across the Ngahauranga Gorge is partially erected and in service.

SOUTH ISLAND LINES.

Midland Railway.—Work on the Kawatiri-Murchison Section of the railway has been confined to the length of 5 miles between Kawatiri Station and the Gowan Station. Formation is nearly complete, and it is intended to at once proceed with the platelaying, ballasting, and completion of the Gowan Station buildings, with a view to handing this section over to the Working Railways.

Westport-Inangahua Railway.—On the Cascade-Hawk's Craig Section fair progress has been made with the advance work, including bushfelling and formation. Considerable accommodation for workmen has been provided in two camps on the main road, and access to the railway-works on the other side of the Buller River is being provided by the construction of a light suspension bridge.