

Serious slips have occurred between Tokatoka Tunnel and Pikiwahine station-yard, and without the use of steam-shovels it would have been difficult to cope with them. Altogether nine steam-shovels have been employed during the year on this section, with economical results, mainly in connection with removal of slips and extra filling for subsiding embankments.

The construction of an approach road about $2\frac{1}{2}$ m. in length from Paradise to Kirikopuni is well advanced. Crushed metal from Tauraroa quarry is being landed on the river-bank in readiness for carting when weather conditions permit, and it is anticipated that the construction and metalling of the road will be completed before the end of next summer.

Only a limited amount of stone-drain and stone-wall building was undertaken last summer, owing to the heavy demand for metal for Waipu Road and completion of the line between Huarau and Portland; but it is anticipated that all of this class of work can be completed during next summer, as well as the final ballasting of the line between Waitotira and Pukehuia.

The formation of Pikiwahine station-yard was completed this year, and the roads within the station limits were metalled. At Omana, station buildings consisting of goods-shed, shelter-shed, four platelayers' cottages, and stock-yards are now complete, and metalling and erection of station-gates are in hand. The trimming of Pukehuia station-yard is complete, and metalling of yard and approach roads is in progress, as well as trimming and completion of formation at Kirikopuni Station.

There are several bridges on this section, and the following is a brief description of the work undertaken on each bridge during the year:—Bridge at 107 m. 31 ch.: Top adjusted owing to slight closing of abutments. Bridge at 110 m. 23 ch.: Permanent spans erected and riveted up. Bridge at 112 m. 25 ch.: Adjustment of top owing to slight closing of abutments with shrinkage of banks. Bridge at 113 m. 0.06 ch.: Three 30 ft. spans erected complete, and permanent top laid. Bridge at 113 m. 66 ch.: One 40 ft., two 30 ft., and two 25 ft. spans erected complete, and permanent top laid. Overbridge at 114 m. 40 ch.: Concrete piers laid; erection of superstructure in hand. Bridge at 114 m. 70 ch.: One 40 ft., and two 30 ft. spans completed, and permanent top laid. Bridge at 115 m. 35 ch.: Permanent top laid. Bridge at 117 m. 32 ch.: Three 30 ft. spans completed, and permanent top laid. Bridge at 117 m. 52 ch.: One 25 ft., and two 20 ft. spans erected complete, and permanent top laid. Overbridge at 117 m. 65 ch.: Permanent bridge erected complete; temporary bridge being dismantled. Wairoa River Bridge at 118 m. 77 ch.: Good progress has been made with this work since its commencement in November last. No difficulties were encountered in sinking of cylinders. Three permanent piers are now complete, and the first cylinder pier on south side of river has been sunk 22 ft. into the sandstone rock of the river-bed. False-work has been erected to midstream, and the concreting of Nos. 3 and 4 cylinders for the centre pier has been commenced. During month of June some delay was caused by floods, which did little, if any, damage. Seven 30 ft. spans have been riveted ready for erection. Bridge at 120 m. 0 ch.: Pile-driving completed.

A certain amount of repair work has been necessary at Tokatoka Tunnel owing to the original section being rather light for the excessive pressure which has developed since the completion of the tunnel, and a further 80 ft. will receive attention this year.

Early in December last a passenger service for the convenience of settlers was commenced between Waitotira and Pukehuia, coincident with the handing-over of the line from Huarau to Portland to the Railway Department. This enables through passengers from Dargaville and Northern Wairoa to connect with express train at Waitotira for Auckland or Russell. The service has been well patronised, and over 4,200 passengers were carried up to the 20th June of this year. A goods service has also been run, and 610 tons of general goods and 9,107 head of mixed stock were handled.

WHANGAREI BRANCH RAILWAY.

The three sections under construction were Oakleigh, Tauraroa, and Waitotira. Permanent stock-yards were renovated, and the whole area on east side of the Waitotira yard coated with 6 in. of metal. Additional stone drains and stone walls, which were completed early in the year, have had the desired effect, and there were no hold-ups of traffic by slips or subsidences. Material from a slip on the main line near Tokatoka Tunnel was utilized for widening Waitotira station-yard in order to provide for possible future extension.

These were the final works in the construction of this branch line, which connects Whangarei and other northern districts with the City of Auckland and the North Island railway system generally, and the three sections were handed over to the Railway Department on the 29th November last, along with the Paparoa, Mareretu, and Waikiekie Sections of the main line.

AUCKLAND—WESTFIELD DEVIATION.

The reconstruction of the Auckland station-yard from 0 m. to 1 m. is under the control of the Railway Department, and this report deals only with the work from there onwards which is being undertaken by this Department. A heavy embankment is being constructed across Judge's and Hobson Bays with spoil derived from large cuttings at Campbell's Point and Orakei. Three steam-shovels, supplemented by manual parties, have been continuously employed, and have completed 34 ch. of embankment at the Campbell's Point end and 38 ch. at the Orakei end, the combined output being about 150,000 cub. yd., or 40 per cent. of the whole. A heavy stone protection wall is being constructed in advance of the earthwork, the quantity of stone placed to date being about 30,000 cub. yd., or slightly under one-half of the required amount. The sites of culvert and sluice-gates at 1 m. 27 ch. and the bridge at 1 m. 42 ch. have been temporarily trestled.

The lighter formation from Orakei basin at 3 m. 20 ch. to the approach cutting to the Purewa Tunnel at 4 m. 57 ch. is well advanced, and spoil is being distributed by work-train to complete the widening of banks. In a few weeks the train will be tipping tunnel-spoil in the Orakei basin. The three cuttings above mentioned represent the major portion of the earthwork for the whole section.