

*Waiotira Southwards.*

*Waikiekie Section.*—The programme of operations for the year was the concentration of men on the completion of Waikiekie Tunnel, rail connection with, and the early commencement of, the Mareretu Tunnel.

The Waikiekie Tunnel was finished about the end of April. The work was one of great difficulty. The ground proved treacherous for the entire length, and particularly heavy and close timbering had to be resorted to. At the northern end a specially designed reinforced-concrete section had to be built before it was possible to timber and drive the rest of the tunnel. Plant and materials for works beyond this tunnel were conveyed over the ridge by means of a wire-rope tramway. This proved a very economical method, and enabled operations to be extended to the Mareretu Tunnel immediately on completion of the work at Waikiekie. Exceptionally good progress has been made, and it is hoped to complete the Mareretu Tunnel by next April. A similar tramway to that in use at Waikiekie has been built over this tunnel hill. The comfort of the men at Mareretu has been provided for by the erection of hut accommodation (120 huts), a boarding-house, and a recreation-hall, as well as the installation of an efficient water-supply.

Bridge-construction over the Mangawai River and Kikowhiti Stream is progressing satisfactorily; a fair amount of platelaying and ballasting has been done. A small stone-crushing plant is supplying metal for the tunnels. The Department's own sawmill has already cut over a quarter of a million feet of timber for workmen's huts, tunnels, temporary sleepers, &c.

*Ranganui Northwards.*

*Paparoa Section.*—All earthworks were practically completed some time ago. Paparoa Station yard has been extended, and the bank at 92 miles 10 chains raised.

Huarau Tunnel was completed about the end of January. This tunnel gave great trouble, the ground pierced being most treacherous. Similar expedients to those used at Waikiekie were necessary. Work, preparatory to platelaying the last 2 chains, was completed in April. The first lift of ballast on this length has been placed, except on the bank at 91 miles 30 chains.

Two platelayers' cottages were finally completed, and, with the exception of the Paparoa Station-yard arrangements, little work remains to be done.

*Mareretu Section.*—The permanent survey has been finished, and formation is complete to 93 miles 53 chains (south end of Golden Stairs Tunnel), and in hand as far as 95 miles 24 chains.

Platelaying and first lift of ballast is complete to 93 miles 41 chains. Owing to the slippery nature of the country between Paparoa Station and Golden Stairs Tunnel, an additional 40,000 cubic yards of material had to be excavated and deposited in the banks, which demonstrated the difficulty of maintaining a train transport service for the delivery of material and supplies to the Golden Stairs Tunnel.

A large amount of preliminary work had to be undertaken, such as service roads, drainage, &c., before tunnelling operations could be put in hand. These operations have been completed. Shingle-bins and bath-houses have been built, and water-supply installed at the southern end.

The total length of bottom heading driven is 7 chains, and concrete lining has been commenced. At the north end the approach cutting is in hand.

The survey of a deviation from Mareretu Station yard to 99 miles is nearly complete. This was necessary owing to the level of the record flood of last year being too near the formation-level.

Some eight steam-shovels and nine locomotives are employed on the incomplete section between Portland, on the Whangarei Branch line, and Huarau, on the North Auckland main line, and it is hoped with this plant to effect a temporary rail connection between Auckland and Whangarei before the end of next year.

*WHANGAREI BRANCH.*

*Oakleigh Section.*—With the exception of 30 chains of deviation the whole line to Portland has been laid and covered with the second lift of ballast. A concrete cottage has been erected at the Oakleigh Station, and the bridge at 7 miles 33 chains will be finally completed on the arrival of the steel girders.