

equipment for excavating and concreting work. The plant installed has proved very successful, and besides considerably accelerating the work, has reduced the amount of heavy manual labour to a very small percentage of the total.

During the year the bottom heading of the coast tunnel was completed, and excavation and lining on the three major tunnels is well advanced.

On the Gisborne and Wharerata sections of the railway the earthwork is almost completed, and on the Kopuawhara section considerable progress has been made on the earthwork, and it should not be long before this part of the work is completed.

Culverts and water-drives are practically completed throughout, and the bridging programme is being accelerated.

Progress is still somewhat hampered by the delay in delivery of materials, and floods have considerably retarded this part of the work.

All piers on the Waipaoa Bridge have been completed, and the erection of the steel spans is now under way. Six 30 ft. spans are in position and four 60 ft. spans have been launched. Two of the 30 ft. spans and two of the 60 ft. spans have been riveted up.

Work is in progress on a number of other smaller bridges at this end of the line.

At the Waikokopu end the Opoutama Stream Bridge has been completed and piles have been made for the Waikokopu and Kopuawhara Bridges.

At the Gisborne end of the line the permanent track has been laid from Gisborne to the north abutment of the Waipaoa Bridge, a distance of about five miles. The first lift of ballast has been completed over this length and the second lift for a distance of two miles.

Work on the Napier-Wairoa section of this railway has proceeded steadily, and, as mentioned previously, but for the disastrous flood of Anzac Day this length would by now have probably been handed over to the Railway Department.

Full details of the year's operations on the Napier-Gisborne and other railways are given in the Engineer-in-Chief's report.

*East Coast Main Trunk Railway: Extension to Opotiki.*—The Government decided recently that the construction of the railway from Taneatua to Opotiki was to be proceeded with, and for the past month or so survey parties have been investigating the question of alternative routes.

It has now been decided to adhere to the route through the Waimana Gorge, and a survey party is proceeding to peg the permanent line.

It will be necessary to carry out a fair amount of survey work before construction can commence, but it is anticipated that the work will be under way before the end of the year.

The construction of the railway necessitates the abandonment of portions of the existing State highway through the Waimana Gorge, and investigations are at present in hand to ascertain the possibility of constructing the State highway on a different route. Even if this is done it will be necessary to construct a new road through the Waimana Gorge also, so as to give farmers the same road access as they have at present.

*Turakina-Okoia Railway Deviation.*—This work has been put in hand to avoid the heavy grades and sharp curvature on the existing main line. A start was made with construction during the previous period, and this year the work has been very vigorously prosecuted.

The outstanding feature of this deviation, which is 10 m. 20 ch. in length, is the driving of the Fordell and Turakina Tunnels, which are 72 ch. and 104 ch. in length respectively. During the past year these tunnels have been opened up and equipped with the latest type of machinery, and approximately 43 ch. of tunnelling has been completed. Simultaneously the excavation of cuttings, the building of culverts, &c., has been carried on, and preliminary work in connection with the erection of the Wangaehu and Turakina Bridges is in hand.

*South Island Main Trunk Railway.*—In my last Statement I described the restarting of this work, the building of the necessary accommodation, and the provision of mechanical equipment, together with the progress made to the end of June, 1937.

During the period just passed the Department have been able to concentrate on the actual work of construction, and has extended its activities over practically the whole length between Wharanui and Parnassus, the old railheads at either end of the line.