

caused considerable delay and extra work. The worst of these occurred on the long and high approach to the Wairoa River Bridge, where the embankment split in half longitudinally for a distance of 7 or 8 chains, one side sinking 14 ft. in a few minutes, the other half remaining stationary. Another filling, which had been constructed to a height of 16 ft. over an old river-flat, sunk and pushed up the surrounding country in waves almost as high as the top of the filling in some places.

Construction work was also commenced early in the year on Okoro Section, and earthworks are complete for over 2 miles beyond Okaihau Railway-station. Underground streams and springs are causing trouble on this section, and stone drains have had to be placed on the foundations of all large fillings to ensure their stability.

The principal works on the Auckland–Westfield Deviation, exclusive of the reconstruction of the Auckland station-yard, which is being undertaken by the Railway Department, are a heavy embankment with a strong stone protection wall across Judge's and Hobson Bays, large cuttings at Campbell's Point and Orakei, and the Purewa Tunnel. Spoil for the embankment is being obtained from the cuttings by steam-shovels and manual labour, and 34 chains of embankment have been completed at Campbell's Point and 38 chains at Orakei end. The stone protection wall is kept ahead of the earthwork, and almost half of the total quantity of stone required has been placed to date. A large amount of work has been undertaken in the big approach cutting at the northern end of Purewa Tunnel, and in the cutting at the southern end, and good progress has been made in the tunnel itself. Unless anything unforeseen happens the whole of the work which is being undertaken by my Department on this deviation should be completed on time.

The construction of the first 14 miles and last 6 miles of the Waihi–Tauranga portion of the East Coast Main Trunk Railway is being undertaken by the Department on the co-operative system, and the intervening length of 20 miles 78 chains is included in the contract entered into with Sir W. G. Armstrong, Whitworth, and Co. (Limited). Athenree Section is almost complete in every detail, and work is so well advanced on the next section (Katikati) that settlers have had the advantage of a goods and passenger service from Waihi to Tuapiro Stream for some time, and it is hoped to extend the service to Tahawai Station (13 m.) shortly. Both goods and traffic are also carried from Tauranga to 40 m. 5 ch., and goods service was extended to Wairoa River in January last. The contractors are making reasonably good progress with their length, but it is doubtful whether they will finish by the due date.

All classes of traffic are also being run by the Department from Tauranga and the Mount eastwards to the present terminus at Taneatua, a distance of approximately 59 miles. Included in the several bridges completed during the year was a large plate-girder span bridge on reinforced-concrete pile piers and abutments over the Rangitaiki River. The construction of the greater portion of this length of line, including station buildings and yards, is practically complete, and at the present rate of progress the remainder of the work should be finished at an early date as far as Taneatua.

The matter of a railway connection from Gisborne to Waikokopu has received careful consideration, and several surveys have been made. Plans and estimates are now being prepared, and as soon as definite figures are available a decision as to the route to be adopted will be made. The indications are that a route following the coast-line fairly closely will be adopted.

As mentioned last year, construction work on Tutira Section of the Napier–Gisborne line is of a heavy nature, but a concentrated effort, with the aid of a large quantity of machinery, has resulted in good progress being made, and it is hoped to be able to convey materials over the line within a few months for the large viaduct over the Waikoau. The foundations of this viaduct are being constructed, and should be completed by the time the steelwork for the superstructure arrives from England. Most of the light formation on Putorino Section has been completed, and the heavier cuttings are being manned.

Operations on Mohaka Section have been confined principally to culverts and to excavation of approach cuttings to tunnels. A commencement has also been made with the boring of one of these tunnels, as well as a tunnel on Waihua Section, where work during the year consisted almost entirely of the completion of the approach cutting to the tunnel. Formation work on the final section to Wairoa has been undertaken principally on a length of 2 miles adjacent to Waihua Tunnel, which, with the Wairoa River Bridge, is the largest job on the section. The northern