

## MARTON STATION.

Marton is a busy junction, and improved facilities are necessary. Approximately 60 per cent. of the goods traffic passing through is between the Main Trunk and south of Marton; 25 per cent. of the goods traffic passing through is between New Plymouth line and Main Trunk. The average traffic to and through Marton Station is as follows: For Marton, 6 per cent.; to and from Wellington—Main Trunk, 59 per cent.; to and from Wellington—New Plymouth, 12 per cent.; to and from New Plymouth—Main Trunk, 23 per cent. On a maximum day about 750 wagons are dealt with. No plans have so far been prepared, but an amount of £15,000 has been included, which should be sufficient to give the accommodation necessary.

## HUNTLY STATION.

A plan has been prepared showing the Huntly yard shifted to a site on the south side of the Awaroa Branch; cost, say, £40,000. In 1919 the Chief Traffic Manager reported that there was insufficient room for the then business; it has since been reported as being much overtaxed. Since 1919 there has been a steady increase in traffic of over 25 per cent.

## STUDHOLME JUNCTION.

The present yard at Studholme Junction is inconvenient to work. An amount of £12,000 has been included for rearrangement.

## NEWMARKET—NEW LYNN DUPLICATION.

An amount of £300,000 is included for the duplication of the Newmarket—New Lynn line. The grades over this portion are heavy—1 in 40, with 10-chain curves on the steepest grades. There are at the present time forty-two ordinary trains, exclusive of a maximum of seven special trains, running over this track daily, and the capacity of the line has been about reached. To improve to any extent the grades, particularly over the portion between Newmarket and Morningside, is not feasible, as we are tied in at Mount Eden. The estimate provides for duplicating on a grade of 1 in 45, costs being as follows: Newmarket—Morningside, £130,000; Morningside—New Lynn, £170,000: total, £300,000.

On the locality-plan showing the railway-lines in the vicinity of Auckland I have marked an alternative route, from Auckland new station to Morningside, crossing Beach Road by overbridge, and tunnelling under the city by tunnel 116 chains long. The maximum grade through tunnel would be 1 in 100, with a stretch of 1 in 80 in the open nearing Morningside. Cost of this proposal would be—City—Morningside, £449,000; Morningside—New Lynn, £167,000: total, £616,000.

Comparative distances by present and proposed routes are: (a) Present route, Auckland to Morningside, 4 miles 44 chains; (b) proposed route, Auckland to Morningside, 3 miles 6 chains. In time, owing to the easy grades, the saving of (b) over (a) would be about fifteen minutes for all trains.

With a line in this position an underground station double-line platform only in the vicinity of the Town Hall would be required. The bulk of the suburban traffic from this direction would be much better served by the proposed route than by the trains, or trams and trains combined, as at present. If such a line were constructed it would be necessary to electrify it, and presumably if such were done the whole of the lines in the Auckland suburban area would be electrified at the same time. The matter can therefore be considered from a broad standpoint only. Apart from the question of electrification, the saving in working-expenses should almost pay interest on the cost of construction. Thus 50 trains a day saving  $1\frac{1}{2}$  miles each = 75 train-miles  $\times$  313 = 23,745 train-miles yearly at a little over 10s. would equal £12,000 per annum. Difference in cost is £316,000; at 4 per cent. this would equal £12,640. The question of the electrification of the Auckland suburban area is worth investigation.

From near Morningside on the city route it will in the future be possible to junction with a low-level line to Kumeu if such becomes advisable.

## HELENSVILLE REARRANGEMENT.

The layout of this station is very bad, and rearrangement is required. An amount of £10,000 has been included to cover this.

## TIMARU STATION.

In 1914 it was proposed to make a big rearrangement of the Timaru Station. From 1905 to 1915 the local goods traffic had increased by 34 per cent. Since 1915 it has dropped again. Of the through business requiring marshalling I have no record, but, basing it on the South Island business generally, the growth is as follows: 1905 to 1915, 30 per cent. increase; 1915 to 1923, 4 per cent. increase. Passenger business is steady. The present facilities at Timaru are not sufficient for satisfactorily and economically dealing with the business. An amount of £75,000 for complete scheme is included in the schedule. Of this, a proportion, say £20,000, should be spent at an early date, the balance later when other more urgent works are completed.

## FRANKTON JUNCTION.

Additional siding accommodation is required at Frankton Junction. An amount of £10,000 has been included to cover this.

## PENROSE—PAPAKURA DOUBLING.

The estimated cost of this work is £80,000. It is a necessary one in view of the growth of traffic. The numbers of time-table trains are: Between Penrose and Otahuhu, seventy; between Otahuhu and Papatoetoe, sixty-four; between Papatoetoe and Papakura, forty-eight. In addition to these there are a maximum number of twenty-one special trains per day. It may be found advisable to commence this work earlier than shown on schedule.