

REPORT ON PUBLIC WORKS BY THE ACTING ENGINEER- IN-CHIEF.

SIR,—

Public Works Office, Wellington, 31st July, 1871.

I have the honor to forward, for your information, a General Report on all works undertaken and executed under the Immigration and Public Works Act during the past year.

I may premise that, in connection with these works, I have visited the following districts, viz.:—From Wellington overland to Manawatu; Manawatu Valley, to Palmerston, and beyond to summit of range south of Manawatu Gorge; Rangitikei, Wanganui, to Waitotara, Patea, and thence overland to New Plymouth; thence to Auckland and along line of Waikato Railway to Onehunga and Tuakau, thence to Mercer. I next visited the Thames in connection with water supply; thence to Tauranga, and along portions of South Road to Taupo, and other roads in the district.

In Wellington I have inspected proposed lines of railway into Wairarapa, but have not been beyond Masterton in that district.

The Districts of Hawke's Bay and Poverty Bay I have not been able to visit.

In the South Island I have inspected lines of railway, in progress and projected, as follows:—Christchurch to Rangiora, and beyond, across Ashley River, by two lines; Selwyn to Rakaia, in connection with Rakaia Bridge and Railway, Timaru to Temuka, Rangitata Bridge, Moeraki to Waitaki, and Waitaki River in connection with bridge site. Dunedin to Clutha, Clutha to Mataura (partially), Mataura to Invercargill.

I also inspected Invercargill Railway to Winton and the Bluff, and visited Dog Island Lighthouse and Nuggets Lighthouse.

In Westland I have visited, along with Dr. Hector, the Grey and Grey Valley, to coal mines, and as far as Ahaura; also Hokitika, and the several districts between these places; as well as Ross and Westport.

In Nelson I inspected, on different lines, the proposed railway to Foxhill.

As I have not been able to make a second visit to the various places in which work is going on, my remarks on them must necessarily be general; but the reports from the officers in charge of the several districts will give full information as to details and costs; and such information as I now report has been gathered from these reports and plans attached.

One of my first duties was, under your instructions, to provide for the necessary supervision of all works by the appointment of competent officers in each district, who were distributed as follows, viz.:—Manawatu to Wanganui, J. T. Stewart, Esq.; Wanganui northwards to Waitotara, W. Hales, Esq., also in charge of Wanganui Bridge; thence to New Plymouth, O. Carrington, Esq.

At Tauranga, A. C. Turner, Esq.; Seventy Mile Bush, C. Weber, Esq.; main road to Taupo, E. H. Bold, Esq., also employed as Telegraph Engineer. Of the above, J. T. Stewart only has been appointed as District Engineer under the Public Works Act.

In the Middle Island, W. B. Bray, Esq., has been similarly appointed as District Engineer in Canterbury; W. N. Blair, Esq., as District Engineer in Otago; and C. Y. O'Connor, Esq., as District Engineer in Westland.

Commencing with roads, I shall briefly sketch out what has been accomplished and what is now in progress, proceeding from Wellington along the north shore of Cook Strait.

ROADS.

The importance of the Manawatu District as a place for settlement, led to a careful examination, in November, 1870, of what had been done towards opening it up by roads by the Provincial Government. I found that a dray track had been partly formed from Foxton to the Oroua River, fourteen miles, and that beyond, a road had been felled, cleared, and partly ditched to the Township of Palmerston, about ten and a half miles. These different sections of the road present very different features, the former being almost entirely through an open sandy country, the latter through stiff heavy clay, but both alike destitute of material, at a convenient distance, for metalling or gravelling the roads after being formed. This fact led to the consideration of the best and the cheapest means of making such a road useful for heavy traffic,—it being quite useless for that purpose in its present state,—and it was felt that a substantial wooden tramroad would best meet the difficulty. I accordingly reported on this (November 28th, 1870), with comparative estimate of tramroad and metalled dray road, showing that between Foxton and the Oroua a tramroad could be made for about £362 a mile, and from thence to Palmerston for about £470 a mile, the two averaging £408; whereas the cost of metalling the already formed dray road between Oroua and Palmerston was estimated to cost £648 a mile. In this case the gravel for the road was supposed to be obtainable at Palmerston or in the neighbouring river