

1886.
NEW ZEALAND.

SURVEY FOR LINE OF RAILWAY BETWEEN LAWRENCE AND ROXBURGH

(REPORT ON), BY THE DISTRICT ENGINEER, DUNEDIN.

Laid on the Table by the Hon. Mr. Richardson, with the Leave of the House.

The DISTRICT ENGINEER, Dunedin, to the ENGINEER-IN-CHIEF, Wellington.

SIR,—

Public Works Office, Dunedin, 20th July, 1886.

Agreeably to instructions contained in Mr. Blair's memorandum of the 22nd December last, directing me to make a trial survey for a railway between Lawrence and Roxburgh in time for the present session, the survey made by the Provincial Government between Lawrence and Beaumont to be taken as far as it goes, with all further necessary information filled in; also to give the sections of the trial surveys from Heriot to the Clutha Valley, and, if not already done, to complete them through to Roxburgh; continuous plans and sections of the various lines to be made on the usual scale, viz., 3 chains to an inch, and the key map, showing the whole on a smaller scale; the plans to be accompanied by a general report and rough estimate:

On account of the authority for this work not being received until the 19th February, and the Engineers on my staff being very busy with other and important works, I was unable to send a party out before the 15th March, since which time the survey has been proceeded with in a vigorous manner. The survey being started in the beginning of winter, and the weather being very broken, thus much retarding the progress of the work, I regret my inability to strictly comply with the instructions.

The plans of the survey made by the Provincial Government contained such meagre information that I found it necessary to start the survey at the termination of the Lawrence Branch Railway, which has thus prolonged considerably the time it would otherwise have taken to complete it.

The sections run from Heriot to the Clutha Valley some years ago by this department stopped at the Island Block and Township of Ettrick. I have been obliged to connect these points with Roxburgh by means of a very rough survey, and, in consequence of not having this portion of the line plotted on a scale of 3 chains to an inch, I have deemed it advisable under the circumstances to forward only a sketch plan showing the various routes on a scale of 4 miles to the inch, together with sections on a scale of 4 chains horizontal and 500ft. vertical. I trust the information contained on the plan will be found all that is required. Should you, however, require the plan and section on the larger scale, they can be forwarded at a later date; but, before they can be completed from Island Block and Ettrick to Roxburgh, a further and more accurate survey will be necessary.

From the data at my command, I now have the honour to submit the following approximate estimate of the various routes, assuming that 40lb. permanent-way is used in all cases, and the lines thoroughly equipped throughout, *omitting rolling-stock*: (1) Lawrence to Roxburgh (*via* Beaumont) say, thirty-eight miles, £188,000; (2) Heriot to Roxburgh (*via* Rae's Junction and Ettrick), say, thirty-four and a half miles, £185,000; (3) Heriot to Roxburgh (*via* Spylaw and Ettrick), say, twenty-nine miles, £188,500.

With reference to the desirability of constructing any of the above lines, I presume I am called upon to express an opinion, and, taking the lines in the order above, I now beg to give it for what it is worth: (1.) From Lawrence to Beaumont, where the line touches the Clutha River, a narrow valley is followed, the adjacent lands being comparatively rough and unsuitable for cultivation. From Beaumont to the Menzion Burn the line comparatively skirts the river, and is hugged by precipitous hills unsuitable for cultivation. The agricultural land on the opposite side of the river, at Beaumont and towards Rae's Junction, is very limited. From Menzion Burn to Roxburgh a considerable area of fair agricultural land is met with, but not sufficient in my opinion to warrant the construction of this line for a very considerable time. (2.) The country between Heriot and Roxburgh is much superior on the whole to that between Lawrence and Roxburgh, very good land being met with between Heriot and the junction with the line *via* Spylaw; also very fine land being