

I will take, as common to both lines, two points—the first where the two lines would cross each other about one mile and a half south of the Pakuratahi Hotel, which by the railway line is twenty-seven miles forty-eight chains from Wellington; the second at the Telegraph Station at Featherston, which is just a quarter of a mile beyond Abbott's Hotel. The distance between these two points by the line *over* the Rimutaka being exactly twenty-one miles fifty-three chains; by the Tunnel Line the distance will be thirteen and a quarter miles, made up as follows, viz., nine and a half miles by the main creeks between Pakuratahi Hotel and Abbott's Hotel, Featherston (see Mr. O'Neill's report), to which must be added the one mile and a half and quarter-mile just described, to the points common to both, as well as at least two miles for contouring the lateral valleys and points of hills between the ends of the tunnel and the points in question. This allowance, it will be seen, is not too much, as the length of the coach road exceeds the length of the line by the creeks by more than two miles, at a much steeper gradient than the railway just surveyed.

The comparative cost of the two lines may therefore be shown as follows. I have already stated that the average cost per mile for the whole length of line is £4,850 per mile; but, to make the comparison fair, the estimated cost of that portion of the line now under consideration should alone be considered, and that amounts, without allowing for rolling stock, to £6,322 per mile. We have, therefore, assuming Mr. O'Neill's estimate for the tunnel to be correct—tunnel line 13¼ miles—viz.:

Tunnel, 1¼ mile, at £660 per chain	...	...	...	...	£85,800
11¼ miles of railway, at £6,322	...	...	...	...	73,496

£159,296

Rimutaka Line—21 miles 53 chains of railway, at £6,322	...	...	...	...	136,954
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Showing a saving in cost by the Rimutaka Line of	...	...	...	...	£22,342
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And a saving in distance by the Tunnel Line of 8 miles 33 chains.

I need not explain that the time expended in making the Tunnel Line would be much longer than needed for the other—probably three times as much, or in the proportion of five or six years to two years.

I have not yet completed the second section of the line, viz., from Masterton to the Manawatu Gorge, but hope to be able to furnish plans, report, &c., in about a month. The first section terminates about a quarter of a mile on this side the Waipoua, a distance of 70 miles 5 chains from Wellington.

I have, &c.,

JOHN ROCKFORD.

### Enclosure in No. 1.

#### APPROXIMATE ESTIMATE—Wellington and Napier Railway.

From Wellington to Masterton—length, 70 miles 5 chains; single line of railway, 3 feet 6 inch gauge; with 40 lb. rails.

	£	s.	d.
Bush Clearing—33 miles 16 chains, 2 chains wide, at 10s. per chain	...	...	1,328 0 0
Earthwork—			
Main Line, 828,857 cub. yards, at 1s. per cub. yard	...	...	41,442 0 0
Mixed earth and loose rock, 199,323 cub. yards, at 1s. 6d. per cub. yard	...	...	14,949 4 6
Rock cutting, 107,144 cub. yards, at 4s. 6d. per cub. yard	...	...	24,107 8 0
Stations, Sidings and Deviations, and Approaches, 61,248 cub. yards, at 1s. per cub. yard	...	...	3,062 8 0
Retaining Walls, 45,680 cub. yards, at 12s. per cub. yard	...	...	27,408 0 0
Bridges and Viaducts—2,826 feet, at £4 per foot	...	...	11,304 0 0
" 259 feet, at £5 per foot	...	...	1,295 0 0
" 3,900 feet, at £6 per foot	...	...	23,400 0 0
" 2,688 feet, at £10 per foot	...	...	26,880 0 0
Culverts—one hundred and fifty-nine, 1 foot, at £6 10s. each	...	...	1,033 10 0
" sixteen, 1 foot 6 inches, at £13 each	...	...	208 0 0
" fifty-eight, 2 feet, at £16 each	...	...	928 0 0
" nine, 3 feet, at £32 each	...	...	228 0 0
" eighteen, 4 feet, at £36 each	...	...	648 0 0
" nine, 6 feet, at £48 each	...	...	432 0 0
Permanent Way—			
Rails and Fittings, 69 tons, at £10 10s. per ton	£721	10	0
Sleepers, 2,050, at 3s. each	307	10	0
Ballast, at 2s. per yard	176	0	0
Laying	88	0	0
70 miles 5 chains, at	£1,293	0	0 per mile
Stations and Sidings, say 3 miles at £1,293 per mile	...	...	3,879 0 0
Level Crossings, say	...	...	500 0 0
Turntables, four, at £110 each	...	...	440 0 0
Points, Switches, and Crossings, twenty sets, at £15 each	...	...	300 0 0
Goods Cranes (1½ ton), six at £30	...	...	180 0 0
Signals, eight, at £25	...	...	200 0 0
Station Platforms and Sheds, say six, at £250 each	...	...	1,500 0 0
Water Tanks, say	...	...	200 0 0
Fencing, 77 miles 20 chains, at 20s.	...	...	6,180 0 0