

1890.
—
VICTORIA.

THE VICTORIAN RAILWAYS COMMISSIONERS ACT 1883,
SECTION 79.

STATEMENT,

DATED THE

TWELFTH DAY OF JULY, ONE THOUSAND EIGHT HUNDRED AND NINETY,

BY THE

VICTORIAN RAILWAYS COMMISSIONERS,

SHOWING THEIR ESTIMATE OF THE COST OF CONSTRUCTING THE
PROPOSED NEW LINES OF RAILWAY, AND OF THE TRAFFIC AND
OTHER RETURNS LIKELY TO BE DERIVED THEREFROM.

PRESENTED TO THE LEGISLATIVE ASSEMBLY PURSUANT TO LAW.

Ordered by the Legislative Assembly to be printed, 15th July, 1890.

By Authority:

ROBT. S. BRAIN, GOVERNMENT PRINTER, MELBOURNE.

VICTORIAN RAILWAYS,

Melbourne, 12th July, 1890.

To the Honorable the Minister of Railways.

SIR,

We are required by clause 79 of the *Victorian Railways Commissioners Act*, No. 767, to transmit to you, under seal, estimates of the cost of the railways submitted for the approval of Parliament, and information as to the traffic and other returns likely to be derived from such railways.

In accordance therewith, we beg to append Statement A, showing the length of each line proposed to be authorized, the estimated average cost per mile, and the total aggregate cost.

It is possible that, when Parliament imposed the duty upon the Commissioners of reporting as to whether additional railways would pay or not, it was not intended to legislate at any one time as largely for construction of railways as was done by Act 821, and as is now proposed by the present Bill.

As, however, it has been recognised that any additional railway construction must be equally distributed over the country, we see no difficulty in dealing with the proposals now submitted; and so long as railway extensions are into districts which only require railways to promote immediate development, or into districts the population of which cannot be expected to progress without railways, we see no cause for alarm in these periodical proposals, consideration, of course, being given to the rate of progress to be made in their construction.

The construction of the railways authorized by Act 821 has afforded the Department sound data for framing the estimates of the cost of the railways now proposed, and the time which has been allowed to make the surveys and obtain all requisite details of the works to be carried out places the Department in a better position than it ever was before to prepare accurate information on the subject.

In framing the estimates, the average cost for land paid for Country Lines constructed under Act 821 has been adopted, and, in the case of Suburban Lines, the Department's valuers have gone carefully over each route and determined the cost upon values now prevailing.

The estimated cost has been calculated from the actual quantities, which have been ascertained from plans and sections made after survey, at prices for similar works in like country for railways made during the last few years, and as there was the fullest competition for each contract let, we know of no fairer way of framing the estimate.

The cost of permanent way has been estimated at a higher rate than has been paid during the past few years, as the steel rail trade has recently become more active, but this item will, of course, be affected by the condition of the market when the purchases are made. This is not expected, however, to materially affect the estimates either way.

The estimates provide only for temporary stations, as to make provision for permanent accommodation would be unwise and unnecessary until the extent and character of the traffic these railways will develop be known.

Rolling-stock will have to be provided as required, not only for these lines, but also for existing railways. This provision must necessarily be made annually, and cannot be estimated in fixing the cost of these projected railways.

The average cost of the proposed railways exceeds the cost of those last constructed, but this arises from the fact that there are many railways in the present Bill for the accommodation of districts more difficult of access than those served by existing lines, and, of course, the works being heavier the average cost is proportionate.

Comparisons of any value as to the relative cost of railway construction in different countries cannot be made without full particulars of the varying conditions; but, broadly stated, the following table, showing the cost of railways in Australasia, taken from the last published reports, proves that extravagance cannot be charged against Victorian construction:—

—	Gauge		Miles Constructed.	Average per Mile: exclusive of Rolling Stock.
	ft.	in.	Miles.	£
New South Wales ...	4	8½	2,171	12,182
South Australia ...	{	3 6 }	1,543	5,541
Queensland ...	5	3	1,931	5,706
New Zealand ...	3	6	1,777	7,582, including Rolling
Victoria ...	5	3	2,199½	11,572
„ (excluding railways constructed prior to 1871-2) ...	...	...	...	8,548

The average cost of construction of railways in America, which is alleged to be cheaper than here, was £10,500 per mile.

Whilst on the subject of estimates, it will not be out of place to refer here to the discussions which have arisen with respect to the relative cost of the Kerang to Koondrook, and Dookie to Katamatite Tramways, and the lines included in this Bill.

These tramways are made through districts most favorable for their construction, and it is not, therefore, sound to contrast their cost per mile with the average cost of the proposed railways, the latter being the average cost of railways to be constructed in districts involving heavy works as well as districts on the plains.

To make a comparison of any value, like should be compared with like.

The nearest approach to similarity in the districts served by the tramways is the railway from Elmore to Tomara.

The estimated cost of that railway is £4,153 per mile, exclusive of permanent-way materials.

This estimate includes accommodation at stations, which has not been provided on the tramways.

If the public would be content to do without the accommodation we have to provide on railways, as they are supposed to be in connexion with tramways under local trusts, then a reduction could be made in the estimates; but we know from experience that they would not; and the tramways having only been opened a short time, it remains to be proved whether further expenditure will not be necessary.

On the Kerang and Koondrook Tramway no provision has been made for stations of any kind ; and where sidings have been laid in, no approaches have been made to them, so that their use is limited to periods when weather conditions are favorable.

The residents of the district have to be on the alert for any traffic they are to receive or forward. In the one case they must be ready to meet the train as the mail coach is met ; and in the other, previous arrangements have to be made when time and opportunity offer for getting a waggon to the place where it is to be loaded and ready to be picked up on the return journey.

Such a condition of things is only warranted where the traffic is exceedingly light, and can only continue for a time, when further expenditure must be incurred.

This system is only possible under conditions of local management, as the public would undoubtedly not accept from us as satisfactory the limited accommodation thus given to them.

And it is also important to point out that the number of lines in the present Bill in districts similarly placed are so few, that if Shire Trusts were allowed to make them, no very material reduction could be made in the gross estimate now under consideration.

For purposes of comparison, we give the estimated cost of the railway from Elmore to Tomara, and the actual cost of the tramways. (See Statement D.)

An explanation of the difference in the cost of each item is given, and it will be seen that, after allowing for the varying conditions, the cost of the Elmore to Tomara Railway is not excessive.

The Tramway charges are higher than railway charges, which naturally affect the revenue results, and will be a factor to be reckoned with at some future date.

We append (see Statement E) a comparison of the rates and fares paid by the public on these tramways and on the Victorian Railways.

Prior to the Koondrook Tramway being opened for public traffic, the contractors, who were also the contractors for the Kerang and Swan Hill line, used the tramway to obtain material for the railway, and the charges for such use amounted to £354.

That amount has been included in the revenue of the Tramway Trust for the current year.

The actual revenue for eleven months of current year was £2,615, £1,004 of which was for timber required for the Swan Hill Railway or local Shire Water Trust works, the balance being equally distributed between general goods and passenger traffic.

The expenditure, excluding advanced provision for fuel and ballast, was £1,744, or 67 per cent. of receipts.

The Katamatite Tramway was only opened in May last, and experience of its working is not yet available.

Having throughout felt the desirability of giving these tramways the fullest opportunity of demonstrating their success, we have supplied materials at cost price, and given the use of our stations. In like manner we have allowed Victorian

rolling-stock to be taken on to the trams, thus doing away with a necessity which would otherwise have arisen for an increase in their capital account to provide rolling-stock.

These tramways are made absolutely under the most favorable conditions for cheap construction, and it would only be misleading to suggest that railways included in the present Bill are in any degree as favorably situated.

The railways proposed by the present Bill are, in the main, in districts of similar character to those accommodated by the existing railways, the exceptions being those to serve the Gippsland country. This country is most difficult of access, and therefore, the residents are the more urgent for the accommodation now intended to be given to them.

The Government Statist has prepared a return (see Statement B) of the population to be benefited by these railways, and although it is only approximate, it shows that such population has almost the same relation to the mileage of railways to be made as the total existing railways bears to the total population of Victoria.

Extracts from reports of officers in charge of surveys (see Statement C) show briefly the character and resources of the country which will be accommodated.

These statements are evidence that the proposed additional railways are not far ahead of requirements, and that they would serve districts which would, in all probability, in time produce net revenue equivalent to the interest to be paid on the cost of construction.

The present proposal contemplates an outlay of £7,886,038, and should take six years, commencing next year, to expend.

The natural expenditure on existing railways for the same period, to meet the demands of growing traffic, including rolling-stock, is not likely to be less than Four millions, so that the State will have to face a loan expenditure up to 1897 of about Twelve millions.

From a railway point of view, and in order not to increase cost of construction by too much work being pressed on the market at one time, this expenditure should be gradual, and at a rate not exceeding Two millions per annum. It is not possible under the present policy of railway construction for the net revenue from railways to meet the interest on the loan monies expended.

Nor, in view of the prospective value of the Victorian Railways, assuming that the revenue during the next few years increases as it has done in the past, is the condition that interest should be immediately met essential.

The revenue from railways for the year 1883 was £1,898,311. For the financial year just closed it was £3,134,000, being an increase of £1,235,689. The mileage of railways open for the two periods respectively being 1,562 miles and 2,473 miles.

There are now under construction 433 miles of railway authorized by Act 821, which will be open before any practical progress has been made with the railways now suggested, making the total mileage at the end of, say, next year, or early in the following year, 2,906 miles, the money obligations of which (excluding cost of working) have already been incurred by the country.

With this additional mileage, and assuming a continuance of the prosperity of the colony, which we see no reason to doubt, the growth of the railway revenue should in the future be equal to the growth of the past; and if this should prove to be so, a gross revenue would be reached in the year 1900 of Five millions.

This revenue would be subject to the working expenses, which, by reason of so many railways being opened and in course of development at one time, would necessarily be high, but as far as an estimate can be formed so far ahead, there ought to be at that time a net annual revenue of $1\frac{3}{4}$ millions.

The amount already expended and authorized out of loans upon railways is 34 millions. The additions proposed amount to Twelve millions, or a total of 46 millions, and taking the interest at $3\frac{3}{4}$ per cent., the interest liability on that would not exceed the net revenue.

In the meantime the consolidated revenue would have to bear any loss between net revenue and the amount of interest to be annually met, but against this there is the increment of the property, which would be constantly increasing.

If possible, it is very desirable that a fund should be created from which to draw any deficiency of interest, so as not to make the burden upon any one year unduly heavy.

It is also most important, and must be fully understood, that, until the whole country be reasonably accommodated with railways, no further reductions should be made in railway charges.

The railways in the neighbourhood of Melbourne known as Suburban Lines are 30 miles in extent, and estimated to cost £1,740,255.

They are generally in districts where there is every probability of development during the next few years.

The experience of the South Suburban Railways proves the large revenue to be derived from them, and that immediate response is not what should solely be looked to.

There is every reason to believe that the traffic on the proposed lines would rapidly develop; and, as the net revenue upon $16\frac{1}{2}$ miles of Suburban Railway last year was £212,000, it is not difficult to see that between £60,000 and £70,000 required to meet interest on this proposed expenditure would be obtained at an early date.

We have refrained from discussing any particular railway included in this Bill, as the circumstances in no one case varied from another sufficiently to warrant it; but, as public interest appears to have been concentrated upon the Fitzroy and Collingwood connexions, it may be as well to give the departmental reasons for their necessity.

The object of making railways to the northern district of Melbourne is clearly and properly to give the railway facilities so much wanted.

It is not sufficient in determining what is necessary to look only to present or immediate wants.

The two lines would pass through densely-populated localities, and, if the residents of both are to have complete railway accommodation, it would be of no use to construct one line, which would necessarily be so far away as to be practically useless to the residents of the other.

If the Collingwood route were selected the Fitzroy district would be ignored, and in the same way the selection of Fitzroy would neglect Collingwood, and thus the Department would be unable to compete with other means of transit.

There is, however, the traffic from beyond Collingwood and Fitzroy to consider, as the construction of these railways in the northern suburbs would serve the districts beyond as well as the immediate neighbourhood of these lines.

It is well understood that residential traffic to and from Melbourne is required to be brought in from all districts, and taken out at the same hours of the day.

The Collingwood line would have to provide for at least two services, viz., one from the north side of Camberwell *viâ* the proposed line through the Kew Asylum grounds, and the other from the residential district between Heidelberg and Clifton Hill. These represent a gathering-ground fully equal to that of any of the lines within the suburban districts, and with the local traffic between Collingwood and Melbourne is quite as much as the Collingwood line could do.

The Fitzroy line would have to provide for two services, one from the Whittlesea line, particularly the denser population up to Preston, and the other from the Outer Circle connexion from Royal Park. This, again, represents a gathering-ground equal to the length of the Brighton Railway, and would be as much as the line could do.

To concentrate all these services on one pair of lines would simply mean interruption to the traffic. The alternative would be to have two pairs of lines from the point where the four channels of traffic would meet, but as this would mean at least a cost equal to that of the cost of the two routes proposed to be opened, and as the two routes would be more favorably situated for competing for the traffic between Collingwood, Fitzroy, and Melbourne than either of them, if only one were selected, there can be no question that both should be made.

An additional reason is that the longer the acquisition of the property for the two routes is delayed the greater would be the cost of obtaining it.

The additional Suburban Railways proposed would necessarily involve re-arrangement of the Melbourne stations, for which provision would have to be made. These additions would also tax the traffic capacity of the existing suburban lines, and provision for laying down additional lines on the latter would ultimately be required.

Given under our hand and seal this 12th day of July, One thousand eight hundred and ninety.

(L.S.)

R. SPEIGHT, Chairman.

R. FORD, Commissioner.

W. H. GREENE, Commissioner.

STATEMENT A.

COUNTRY LINES.—EXCLUSIVE OF PERMANENT-WAY MATERIAL AND ROLLING-STOCK.

Name of Line.	Steepest Gradient.	Length.	Estimated Cost.	Total.
	1 in	Miles.		
Alberton and Boodyarn	40	10·79		
Alberton and Woodside	50	15·19		
Alexandra Branch and Alexandra	40	4·11		
Allansford and Nirranda	50	17·85		
Bacchus Marsh and Coimadai	40	8·61		
Bairnsdale and Bruthen	30	19·30		
Bairnsdale and Colquhoun	40	23·82		
Baxter's Flat and Merricks	40	14·45		
Beaconsfield and Gembrook	{ 30 80 }	{ 20·61		
Beeac and Cressy	66	11·79		
Benalla and Fifteen-mile Creek	40	17·43		
Camperdown and Cressy	60	31·55		
Cressy and Scarsdale	66	25·25		
Croydon and Launching Place	40	19·87		
Daylesford and Guildford	40	16·82		
Dimboola and Werrap	66	31·40		
Donald and Corack	130	11·87		
Dooen and Kewell West	100	12·33		
Dunolly and Bradford	40	20·77		
Elmore and Tomara	110	30·20		
Essendon and Bulla	50	8·85		
Geelong and Barwon Heads	100	9·06		
Glenloth and Ninyeunook	66	15·00		
Heathcote and Corop	50	36·38		
Heidelberg, Arthur, and Diamond Creek Junction	50	14·73		
Inglewood and Munica	50	19·24		
Laanecoorie and Arnold's Bridge (<i>via</i> New-bridge	66	11·66		
Larpen and Scott's Creek	40	19·11		
Leongatha and Boyle's Creek	40	8·56		
Meeniyan and Lower Tarwin	55	12·20		
Moe and Moondarra	30	15·30		
Monomeith and McDonald's Track	34	29·89		
Montgomery and Strathfieldsaye	50	13·22		
Nathalia and Kyabram	220	22·27		
Natimuk and Goroke	60	30·16		
Neerim South and Neerim	40	5·51		
Noradjuha and Clear Lake	66	9·38		
Rupanyup and Cope Cope	66	26·65		
Stawell and Wallaloo	50	26·15		
Tallangatta and Koetong... ..	40	19·22		
Wangaratta and Hedi	80	21·90		
Warracknabeal and Galaquil	170	20·00		
Yackandandah and Dederang	40	21·92		
Total ... ..	...	780·37	£6,972 per mile	£5,440,393

STATEMENT A—*continued.***SUBURBAN LINES.**—EXCLUSIVE OF PERMANENT-WAY MATERIAL AND ROLLING-STOCK.

Bulleen-road and Templestowe	40	4.38		
Collingwood and Outer Circle	50	2.14		
Flemington-bridge and Pascoe Vale	50	4.00		
Heidelberg Line and Northcote Loop Line	77	0.60		
Kew and Doncaster	40	6.07		
Newmarket and Keilor-road	50	5.24		
Prince's-bridge and Collingwood	60	2.36		
Prince's-bridge and Scotchmere-street	50	2.38		
Sandringham and Cheltenham	60	3.10		
Scotchmere-street and Northcote	50	0.68		
Total ... ..	...	30.95	£54,387 per mile	£1,683,282
				£7,123,675

PERMANENT-WAY MATERIAL.

COUNTRY LINES.

780.37 miles, at £904 (including sidings) £705,390

SUBURBAN LINES.

30.95 miles, at £1,841 (including sidings) £56,973

£762,363

£7,886,038

NOTE.—Owing to the sharp curves and steep gradients which the surveys show to be necessary on the railways from Beaconsfield to Gembrook, and from Bairnsdale to Bruthen, a maximum speed of 12 miles must not be expected.

STATEMENT B.

VICTORIAN RAILWAYS.

STATEMENT SHOWING THE LENGTH AND ESTIMATED COST OF THE UNDERMENTIONED PROJECTED RAILWAYS, AND THE POPULATION, LIVE STOCK, LAND IN CULTIVATION, PRODUCE, VALUE OF RATEABLE PROPERTY, PLANT, MACHINERY, AND IMPROVEMENTS ON FARMS IN THE DISTRICTS LIKELY TO BE SERVED BY SUCH LINES, WITH THE AREA TO WHICH THE STATISTICS REFER, AND OTHER INFORMATION.

Main data table with columns: Proposed Railway (From, To, Length, Estimated Cost), Estimated Population, Value of Rateable Property (Total, Annual), Number of Farms (Cultivated), Live Stock (Horses, Cattle, Sheep, Pigs), Cultivation (Wheat, Oats, Other Cereals, Root Crops, Hay, Green Forage, Other Tillage, Total), Produce (Wheat, Oats, Other Cereals, Root Crops, Hay, Wine), Estimated Value of Improvements on Farms, Farming Machinery and Plant, and Area to which Statistics refer.

Office of the Government Statist, Melbourne, 25th June, 1890.

H. H. HAYTER, Government Statist.

STATEMENT C.

EXTRACTS FROM SURVEYORS' REPORTS.

ALBERTON (YARRAM) AND BOODYARN LINE.

The land around Yarram, and for the first seven miles beyond, is of good quality, and suitable for agricultural purposes, but a great deal of it is used for grazing at present. There is also a large quantity of very rich land in the parish of Carrajung, five or six miles beyond the terminus of this line. A large forest of good timber would be tapped by this line.

ALBERTON AND WOODSIDE LINE.

Between Alberton and Woodside there is a very large quantity of land suitable for agricultural purposes, more especially around Yarram, and between this line and the sea coast. Not much cultivation is carried on at present in the district, the land being chiefly used for pasturage. There is also some excellent land beyond Woodside, between that place and the coast. The district through which the line passes is well populated.

ALEXANDRA BRANCH AND ALEXANDRA LINE.

This line commences at the end of the line from Cathkin towards Alexandra, now in course of construction, and terminates near the township of Alexandra. With the exception of the river and creek valleys, the soil about Alexandra is of poor quality and unfitted for cultivation. Most of the hilly country adjacent to the line, however, is occupied by large proprietors, and is devoted to sheep and cattle farming, and there would be a large traffic in wool and stock. On the alluvial flats above mentioned there are a considerable number of small farms, and most of the land is fit for cultivation, though not extensively used for that purpose at present. There is a limited quantity of good timber in the district. The population settled along the route of the line is not large; but Alexandra, the terminus, is a fair-sized and old-established township, and this line would accommodate the population along the valley of the Goulburn, beyond Alexandra.

ALLANSFORD AND NIRRANDA LINE.

The land passed through by this line is of a superior quality, there being a large area of rich black soil. It is more used for grazing at present than for agricultural purposes, though there is a large amount of cultivation carried on. The principal crops are oats, wheat, barley, peas, and potatoes. A large quantity of cheese and butter is also manufactured. The population of the district, which is scattered, is estimated at about 2,000.

The roads in the district are very bad, being quite impassable in the winter. A large quantity of good timber can be obtained.

BACCHUS MARSH AND COIMADAI LINE.

This line would pass through the township of Bacchus Marsh and the village of Darley. The district, which is a well settled one, contains a large quantity of good land. There are some extensive lime works at Coimadai, the terminus of the line.

BAIRNSDALE AND BRUTHEN LINE.

Between Bairnsdale and Sarsfield (ten miles from Bairnsdale) a great deal of the land is fit for cultivation, but much of it is used at present only for grazing purposes. The next four miles of the line passes through land of poor quality; but around Bruthen, on the extensive flats of the Tambo River, the land is of good quality, fit for both cultivation or grazing. Bruthen is the principal township of the Tambo Shire, and is the outlet of the district extending to Buchan, the Snowy River settlement, and Monaro, in New South Wales.

BAIRNSDALE AND COLQUHOUN LINE.

From Bairnsdale to the Tambo River, fourteen miles, the land on both sides of the line is settled. The first five miles of the line passes through good agricultural land, and that also along the valleys of the Tambo and Nicholson Rivers is of exceptionally good quality. The remainder of the line passes through land which is fit for grazing purposes only. Most of the timber suitable for sawing has been removed, but there is still a quantity available. The district along the first thirteen miles of the line is well populated, but on the remainder there are very few settlers at present.

BAXTER'S FLAT AND MERRICKS LINE.

The land along the route of this line is well settled, and a great deal of it is of very good quality, more especially on the hilly portions, where the soil seems specially adapted for fruit-growing. On the elevated part of this district there are excellent sites for residences, commanding views of Port Phillip and Western Port Bays.

BEACONSFIELD AND GEMBROOK LINE.

The whole of the district passed through by this line is well settled, the first eight miles being held principally in twenty acre allotments, the remainder in blocks of larger area. There is a numerous population, which is likely to increase. The land along the first eleven miles of the line is not favorable for cultivation (excepting in the gullies), but parts are used for grazing purposes. The rest of the country passed through is good, and suitable for either cultivation or grazing.

BEEAC AND CRESSY LINE.

Between Beeac and Cressy the land is of good quality, and there is a great deal of it under cultivation, very large yields of oats being produced therefrom. The district is moderately well populated. The traffic would chiefly consist of wool, live stock, grain, firewood, and mining timber for Ballarat mines from the Cape Otway Forest.

BENALLA AND FIFTEEN-MILE CREEK LINE.

This line passes through country well settled, but used chiefly for grazing purposes; the greater part of it, however, is first-rate land, and is suitable for the cultivation of grain and fruit. The principal products are wheat, oats, mangolds, potatoes, fruit, grapes, and dairy produce.

CAMPERDOWN AND CRESSY LINE.

The land in the vicinity of this line is principally held in large estates, and used for grazing purposes. There are, however, a few farms around Lake Kariah and Foxhow. There is not much land suitable for cultivation near the route of the line, the best of it being near Camperdown and on the banks of several of the lakes between that place and Foxhow.

CRESSY AND SCARSDALE LINE.

Between Cressy and Pitfield the land passed through is of fair quality, but is used chiefly for pasturage. From Pitfield to Newtown, where this line joins the Scarsdale and Linton's line, the land is of poor quality, it being a mining district, though there are a few small farms here and there. The population is scanty at present. The local traffic would consist chiefly of wool, live stock, grain, and firewood.

CROYDON AND LAUNCHING PLACE LINE.

For the first six miles of this line the land passed through is of poor quality, but when Wandin Yallock is reached the soil becomes very fertile, and capable of growing almost anything, especially fruits, such as raspberries, currants, and gooseberries, for the former of which it is particularly famous, and large quantities are grown. The land along the valley of the Yarra and the Woori Yallock Creek is also very good, and the country around Warburton, about six miles beyond the Launching Place, is well suited for cultivation. The population of the district is not large at present, but it is being rapidly settled upon.

DAYLESFORD AND GUILDFORD LINE.

A great deal of the land passed through by this line is of a very fertile character, and suitable for growing grain crops and hay, but though there is a considerable amount of cultivation in parts, the land is principally used for fattening cattle; no doubt, if a railway were constructed, the area of cultivation would be largely increased.

The population is only moderately large.

DIMBOOLA AND WERRAP LINE.

The whole of the country between Dimboola and the terminus of this line, and for a considerable distance beyond, is of first-rate quality, and specially adapted for wheat-growing. A great deal of the land is covered with mallee scrub at present, but it is being rapidly cleared by rolling, and placed under cultivation.

DONALD AND CORACK LINE.

The country passed through by this line consists of land of very good quality, mostly open plains, and very suitable for wheat-growing. The surrounding district is all settled, and the settlement continues for some distance beyond the end of the line. It will serve a large area of country, and is badly wanted, farmers having to cart their produce a long distance over bad roads.

The principal product is wheat, with a fair amount of wool and live stock.

DOOEN AND KEWELL WEST LINE.

The land along this line is all of good quality, and a large quantity of wheat is grown thereon, which will be considerably increased now that irrigation is being provided.

The district is well populated, and the settlement continues for a considerable distance beyond the end of the line.

DUNOLLY AND BRADFORD LINE.

After leaving Dunolly, the line for the first five miles passes through very barren country; the next ten miles, however, goes through a very fertile district, largely devoted to growing cereals, as well as to grazing. If this line were constructed it is considered that a much greater area would be placed under cultivation, as this part of the Loddon Valley is particularly well adapted for the purpose.

The last five miles of the line passes through poor country, only suitable for grazing. There is a considerable population in the district, which would be accommodated by this line.

ELMORE AND TOMARA LINE.

The district passed through by this line consists of land all of good quality, and suitable for agriculture. For the first eight miles it is chiefly used for grazing purposes, but between this point and the terminus the land is well settled, and a very large proportion of it is cultivated. There is also a large area of good land beyond the end of the line, the owners of which would be accommodated thereby.

ESSENDON AND BULLA LINE.

The land passed through by this line is of excellent quality, and in parts is cultivated, oats, barley, and wheat being produced; but the land is chiefly used for dairy farming purposes, a large number of cows being kept. The district served by the line is a populous one.

GEELONG AND BARWON HEADS LINE.

The country in the neighbourhood of this line is well settled, the land being of medium quality, in the main divided into small holdings; hay-growing, gardening, and sheep farming are the principal industries. Deep-sea fishing is carried on by a few fishermen, but owing to the exposed nature of the coast not much is done.

Barwon Heads possesses many natural advantages such as usually attract visitors, and if this line were constructed would, doubtless, become a popular resort.

GLENLOTH AND NINYEUNOOK LINE.

The land along the course of and beyond the end of this line is all of good quality, and well settled. The line would accommodate a large and well populated district along the valley of the Avoca River.

HEATHCOTE AND COROP LINE.

Along the first eight miles of this line the land is of rather poor quality, suitable only for grazing, but from this point to Corop the land is very good, and is suitable for cultivation.

The country in the vicinity of the line is, generally speaking, divided into small holdings. The district is a well populated one.

HEIDELBERG, ARTHUR, AND DIAMOND CREEK JUNCTION LINE.

The land in this district is principally used for grazing and fruit growing, a large area about Greensborough being laid down in orchards. If this line is constructed there is a probability of the land between Heidelberg and Eltham being largely built upon. The traffic will consist principally of firewood and fruit, but eventually there will be a large passenger traffic between Melbourne and Eltham. The construction of this line will bring Queenstown within five miles of a railway station, and Kangaroo Ground within three miles of the station at Eltham.

INGLEWOOD AND MUNICA LINE.

Between Inglewood and Munica the district is well settled, as is also the country beyond the latter place. The soil is of good quality, and can be irrigated. A large quantity of the land is cultivated, but the line passes through some large grazing properties, which, if subdivided, would support a much larger population. As it is there should be a considerable amount of traffic on this line.

LAANECORIE AND ARNOLD'S BRIDGE (VIA NEWBRIDGE) LINE.

This line passes through a long-settled and well-populated district. The land is nearly all of good quality, and suitable for grazing and cultivation.

LARPENT AND SCOTT'S CREEK LINE.

The land for the whole length of this line is of fair quality, and well adapted for fruit growing. There is a very large area of land between this line and the Gellibrand River, some of it being of the best description, which the construction of this line would probably open up. A large portion of the settled districts of Carpendeit and South Purrumbete would also be served by it. There is a moderately large population settled along the route of the line.

LEONGATHA AND BOYLE'S CREEK LINE.

The land along the whole length of and beyond the terminus of this line is of first-class quality, quite equal to the best in South Gippsland. It has all been selected, and most of the selectors are occupying their blocks, so that there is a large amount of settlement in the district. There is a large quantity of good marketable timber within a convenient distance of the line.

MEENIYAN AND LOWER TARWIN LINE.

The greater part of the land along the route of this line is of poor quality, though there are patches which, if drained, would grow almost any kind of crops. There is also a small quantity of good land along the banks of the Tarwin River. There is very little settlement in this district at present, and only sufficient land is cultivated to meet the local requirements.

MOE AND MOONDARRA LINE.

Along the route of this line from Moe to the Tyers River the greater part of the land is of an inferior quality. After crossing the Tyers some very good land is met with, which continues right through to Moondarra, where there is a large extent of it which has been selected and occupied. The district is at present thinly populated. There is some fine marketable timber in the Moondarra Forest, and there is every prospect of a large traffic being done in that article for some years to come.

MONOMEITH AND McDONALD'S TRACK LINE.

All the land in the district through which this line passes is of a very superior quality, well settled, and suitable for the growth of cereals and all kinds of root crops. The roads are almost impassable for six months out of the year, thus preventing the district from becoming as prosperous as it otherwise would. The district is a well populated one.

MONTGOMERY AND STRATHFIELDSAYE LINE.

For the first four miles of this line the land passed through is of a very rich description. From there to the Perry River, twelve miles from the commencement, it is of fair quality, suitable for grazing or agriculture. Along this river there are some orchards, and the soil has been found very suitable for fruit growing. The line passes for about three miles through the Ramahyuck Aboriginal Reserve, which is very fine land.

NATHALIA AND KYABRAM LINE.

This line would connect the Nunurkah and Nathalia Railway with that from Tatura and Echuca. After leaving Nathalia the land passed through for the first three miles is very good; from there to the River Goulburn it is not so good, being used principally for grazing; between that river and Kyabram the land is all good, and is mostly under cultivation. The land is chiefly divided into small holdings, and the settlement extends for miles on both sides of the line. The principal industries are wheat and fruit growing, grazing, and dairying.

NATIMUK AND GOROKE LINE.

The principal products of this district are wool, wheat, and fat stock. The land along the whole length of the line is of good quality, and is well settled. Goroke is the principal town, and is the centre of a large farming district.

NEERIM SOUTH AND NEERIM LINE.

The land on both sides of and beyond the end of this line is all settled upon, and a great deal of it is of excellent quality. There is a very large quantity of splendid timber in the district which would be accommodated by this line.

NORADJUHA AND CLEAR LAKE LINE.

For the whole length of this line, and for some distance beyond the end of it, the land is of very good quality, and principally used for wheat growing. It has all been selected, and is fairly well populated.

RUPANYUP AND COPE COPE LINE.

This line passes through very fair land suitable for grazing or agricultural purposes. Most of it is under cultivation.

The district is a moderately well populated one. The line passes through the township of Banyena, and the small settlement of Avon Plains.

STAWELL AND WALLALOO LINE.

For the first nine miles of this line the land passed through is of very poor quality; from that point to the end of the line it is nearly all good, and nearly all suitable for cultivation. The district is a well settled one, the greater portion being held by small selectors. There is a large quantity of timber suitable for firewood and mining purposes.

TALLANGATTA AND KOETONG LINE.

The land through which this line passes is of fair quality, nearly all selected, grazing being the principal industry; the population is therefore small at present. There is a large extent of fine land beyond the end of this line, in the neighbourhood of Corryong and Towong. There is a fair supply of marketable timber in the district.

WANGARATTA AND HEDI LINE.

The district through which this line passes is a rich and well-settled one. There is not much cultivation at present, owing to the want of railway communication. The principal industry is grazing.

WARRACKNABEAL AND GALAQUIL LINE.

The country passed through, and for 25 miles beyond the end of this line, is of good quality, and nearly all fit for cultivation. There is a small but rapidly increasing population in the district, and a large area will shortly be under cultivation.

YACKANDANDAH AND DEDERANG LINE.

From Yackandandah to Palmer's Gap, eleven miles from Yackandandah, the land passed through is mostly of inferior quality, suitable only for grazing purposes. From Palmer's Gap to Dederang there is a narrow tract of better land, and around Dederang and along the Kiewa River Valley there is a large tract of fine land.

STATEMENT D.

COMPARATIVE STATEMENT of Cost per Mile of the Kerang to Koondrook and Dookie to Katamatite Tramways, with the Estimated Cost of the proposed Elmore and Tomara Railway, not including Signals and Interlocking, Gatehouses and Station Buildings, Turntables and Engine-sheds, or Telegraph Line.

Description of Work.	Kerang and Koondrook Tramway, 13m. 73c.	Dookie and Katamatite Tramway, 16m. 70c.	Elmore and Tomara Railway, 30m. 16c.	Remarks.
	£ s. d.	£ s. d.	£ s. d.	
Land ...	37 0 0	130 0 0	540 0 0	On the Koondrook Tramway the land taken is only one chain wide; only about 40 acres had to be purchased altogether, and this was obtained for £437, including all compensation for fencing. On the Katamatite Tramway the land is only one chain wide, and little or no compensation had to be paid for severance, as the line runs for almost its entire length alongside a one-chain road. On the Tomara Railway the land is estimated as being 1½ chains wide. Less width than this will not permit of future duplication, as well as the proper completion of the first line. Extra land is also taken at stations. The fencing on the Koondrook Tramway is a very small item. What fencing was erected was nearly all done by the landowners, who were paid for it as part of their land compensation. On the Katamatite Tramway, about 12 miles of the fencing on one side of the line is the original fence which was put up by the landowners before the Tramway was started. The new fencing erected is of posts and 6 or 7 wires. On the Tomara Railway, allowance has been made for a new fence of posts, 1 rail and 5 wires, on each side of the line, with three-rail fencing at crossings and station grounds. As the Koondrook Tramway is unfenced, there are no cattle pits required, except three at intersections of cross fences. On the Katamatite Tramway, the pits are not constructed as substantially as is necessary for a railway. No gates have been erected on the Koondrook Tramway.
Fencing ...		83 0 0	260 0 0	
Cattle Pits ...		20 0 0	50 0 0	
Occupation Gates ...	Nil	46 0 0	34 0 0	
Clearing ...	4 0 0	38 0 0	25 0 0	The Koondrook Tramway required no clearing at all on 10 miles out of the 13 miles 73 chains.
Earthworks ...	170 0 0	187 0 0	486 0 0	Koondrook Tramway formation width—cuttings, 13 feet 8 inches; banks, 12 feet. Formation generally is too low, and from 2 to 3½ feet too narrow. Katamatite Tramway formation width—both cuttings and banks, 12 feet 6 inches; 3 feet too narrow. On two-thirds of the line the formation is less than 1 foot high. On the Tomara Railway, the formation width is 15 feet 6 inches, which is found by experience not to be too wide; and the banks, from end to end of the line, average 2 feet 3 inches high.
Bridges ...	112 0 0	39 0 0	99 0 0	Koondrook Tramway bridges are generally similar to railway bridges, but Katamatite Tramway bridges are of much lighter construction, and there are very few bridges on the line.
Culverts ...	37 0 0	17 0 0	43 0 0	The Koondrook Tramway culverts are the same in design as railway culverts; but the Katamatite Tramway culverts are of lighter material, and there are not nearly so many required as on the other two lines.
Metalling Roads ...	Nil	20 0 0	53 0 0	No metalling has been done on the Koondrook Tramway. On the Katamatite Tramway the approaches are metalled; but, gravel being convenient, it was put on for two-thirds of the estimated cost of metal or gravel for the roads on the Tomara Railway, where there is none available.
Ballast ...	353 0 0	189 0 0	355 0 0	On Koondrook Tramway, ballast cost from 4s. to 7s. 9d. per cubic yard; on Katamatite Tramway 3s. 6d. per cubic yard; and the estimated cost for Tomara Railway is 5s. 3d. per cubic yard. The ballast on both Tramways is only 6 inches in depth, the estimated depth for the Railway being 8 inches, which is found in practice to be little enough to carry railway traffic for any length of time.
Sleepers ...	322 0 0	404 0 0	483 0 0	The sleepers on the Koondrook Tramway, owing to the line starting from the redgum forest on the Murray, cost only 3s. 3d. each; those on the Katamatite Tramway cost 4s. each, which is about the present ruling rate paid by the Railway Department; but for the Tomara Railway, in common with all proposed new lines, sleepers are estimated at 5s. each, owing to the growing scarcity of timber suitable for sleepers, and the average distance from source of supply and place of consumption.

STATEMENT D—continued.

Description of Work.	Kerang and Koondrook Tramway, 13m. 73c.	Dookie and Katamatite Tramway, 16m. 70c.	Elmore and Tomara Railway, 30m. 16c.	Remarks.
	£ s. d.	£ s. d.	£ s. d.	
Laying Permanent-way	69 0 0	111 0 0	123 0 0	The platelaying was done for a very cheap price on the Koondrook Tramway, otherwise there is not much difference in the cost of tramway and railway platelaying
Water Supply ...	14 0 0	5 0 0	66 0 0	The Koondrook Tramway water supply is drawn from the River Murray by a wind-mill, or, when the wind fails, by the station-master pumping by hand into six 400-gallon tanks fixed on a timber frame. The Katamatite Tramway water supply is simply two 400-gallon tanks on a timber frame, fixed over a spring, four miles from Dookie, by the contractor for the line, and taken over from him when he had finished. A man has to be constantly at work with a hand-pump to keep up sufficient supply. For the Tomara Railway, it is estimated that a large tank will have to be excavated and a steam-pump erected to ensure a permanent supply
Trucking Yards ...	22 0 0	Nil	26 0 0	No trucking yards have as yet been provided on the Katamatite Tramway, and no live stock are trucked
Provision, 10 per cent. ...	1,140 0 0	1,289 0 0	2,643 0 0	
Engineering and Surveying	114 0 0	129 0 0	264 0 0	
Permanent-way Materials	63 0 0	130 0 0	150 0 0	
	642 0 0	681 0 0	765 0 0	
Totals ...	1,959 0 0	2,229 0 0	3,822 0 0	

The Average Cost per mile of the two Tramways is £2,094, as against an Estimated Cost of £3,822 for the Railway. The principal items of difference are the following:—

Description of Work.	Average Cost per mile on Tramways.	Cost per mile on Railway.	Excess of Cost of Rail- way over Tramways.
	£ s. d.	£ s. d.	£ s. d.
Land ...	80 0 0	540 0 0	460 0 0
Fencing ...	43 0 0	260 0 0	217 0 0
Cattle Pits ...	12 0 0	50 0 0	38 0 0
Occupation Gates ...	23 0 0	34 0 0	11 0 0
Clearing ...	21 0 0	25 0 0	4 0 0
Earthworks ...	178 10 0	486 0 0	307 10 0
Bridges ...	75 10 0	99 0 0	23 10 0
Culverts ...	27 0 0	43 0 0	16 0 0
Metalling roads ...	10 0 0	53 0 0	43 0 0
Ballast ...	271 0 0	355 0 0	84 0 0
Sleepers ...	363 0 0	483 0 0	120 0 0
Laying Permanent-way ...	90 0 0	123 0 0	33 0 0
Water Supply ...	9 10 0	66 0 0	56 10 0
Trucking Yards ...	11 0 0	26 0 0	15 0 0
Engineering and Surveying ...	96 10 0	150 0 0	53 10 0
Permanent-way Materials (including carriage to starting point of line) ...	661 10 0	765 0 0	103 10 0

The total difference per mile is £1,728, and of this £1,402 is made up of—Land, £460; fencing, £217; earthworks, £307 10s.; ballast, £84; sleepers, £120; water supply, £56 10s.; engineering, £53 10s.; and permanent-way materials, £103 10s.

The extra on land is caused by more land being required than is provided for the Tramways, and by the higher prices and severance damages which have to be paid by the Railway Department. Extra on fencing, because the Railway line is proposed to be substantially fenced from end to end with a fence which will satisfy the landowners, who are not generally satisfied when a Railway is enclosed with fences of posts and wire only. Extra on earthworks, because wider formation is provided for on the Railway than on the Tramways, and the Railway banks are nearly twice as high on the average as the Tramway banks, the latter being both too narrow and too low. Extra on ballast, because provision is made for 8 inches in depth on the Railway as against 6 inches on the Tramways. Extra on sleepers, because it is estimated that before long much higher prices will have to be given for sleepers, as timber becomes scarcer. Extra on water supply, because Koondrook Tramway is exceedingly favorably situated for getting water, and because no permanent provision has been made for water on the Katamatite Tramway.

STATEMENT E.

COMPARATIVE RATES, KOONDROOK TRAM AND VICTORIAN RAILWAYS.

Koondrook Tram Rates.						Rates on Victorian Railways for same distance.	If Tramway was part of Victorian Railways, proportion of through rate to Melbourne, according to train distance, would be—	
				Miles.		Four Classes.		
Kerang	to	Koondrook	...	14	Ordinary goods	4/ per ton	5/	3/6, 4/8, 5/10, 7/ per ton
Koondrook	,,	Kerang	...	14	Sawn timber	4/ "	2/6 ...	11d. per ton
Gannawarra	,,	"	...	12	"	4/ "	2/ ...	9 1/2d. "
"	,,	"	...	12	Wheat	20/ per truck	18/ ...	8/ per truck
Koondrook	,,	"	...	14	Live stock	10/ per truck	22/ ...	8/2 "
Not named	,,	"	...	2 1/2	Firewood	10/ per truck	10/ ...	—
Koondrook	,,	"	...	14	"	20/ per truck	12/6 ...	—