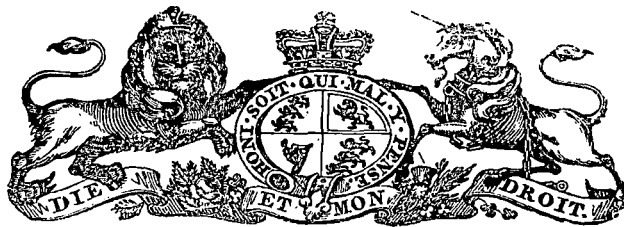


(No. 37.)



1880.

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TASMANIA.

LEGISLATIVE COUNCIL.

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**RAILWAY TO HAMILTON, BOTHWELL,  
AND OATLANDS:**

**ENGINEER-IN-CHIEF'S REPORT.**

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Laid upon the Table by Mr. Moore, and ordered by the Council to be printed,  
August 10, 1880.



*Lands and Works Office, Hobart Town, 31st May, 1880.*

SIR,

I HAVE the honor to report that I have examined the country between Bridgewater, Hamilton, Bothwell, and Oatlands, with reference to the practicability and probable cost of a line of railway connecting those places.

I entered upon the work to select, first, a line that would be likely to give the utmost facilities to the greatest number of people in the settled districts, and one that by its proximity to crown lands would promote increased future settlement upon such lands; and secondly, with a view to save all possible length in the through mileage of the railway (and with this latter aim I tried to get up the valley of the Allandale Rivulet, on the New Norfolk and Hamilton section), but I found that the only feasible route was also that which fulfilled the primary object I had in view.

Throughout its whole course the line passes through settled districts, and would, I think, command a very fair amount of traffic. I do not assume that it could at first pay the full interest on the cost of construction, as the country is of too rough and broken a character for many miles to admit of very cheap works; but I think you can safely assume that the traffic would very largely increase, as in the case of the Main Line Railway, and that a considerable impetus would be given to settlement even as far as the Lake Districts.

*As to the Route.*—I have examined both sides of the River Derwent between Bridgewater and Hamilton; the route *via* Allandale Rivulet, on the New Norfolk and Hamilton section the Dew Rivulet and Blackman Valley routes, on the Hamilton and Bothwell section; and three different routes on the central and difficult portion between Bothwell and Oatlands, and should recommend the following as the most feasible; viz.—

To commence at a junction with the Main Line Railway at the south end of the Bridgewater Causeway and follow the south side of the River Derwent through New Norfolk to "Ivanhoe" on the estate of John Read, Esq., to cross the River Derwent near that place and tap the Macquarie Plains District, and thence by another crossing of the Derwent through the Bushy Park Estate to Glenora, and from here again follow the south side of the river nearly to its junction with the River Clyde; to cross the Derwent again here and follow the River Clyde valley through Hamilton, thence *via* the Dew Rivulet and the Hollow Tree Settlement to Bothwell; pass at back of Township near the Clyde and in a northerly direction to near the boundary of the Denistoun Estate; from this point eastward past Wood Springs to the saddle on watershed at commencement of portion of road known as the "Sideling Hills," thence round several spurs running down from foot of the Table Mountain Range to the River Jordan about a mile above the large bridge and near the "Red House," across the table land within the large bend of the river to an upper crossing of the same near an old ford, and thence through Anstey Barton Estate and along Dulverton Rivulet to Oatlands near the Scotch Church; from this past Mr. Thomas Littlechild's house at Hilly Park to a junction with the Main Line Railway at Oatlands Station.

*As to Works.*—I have estimated the works for a single line with a gauge of 3ft. 6in., with gradients of 1 in 40, and curves of 4 or 5 chains radius where required for economical construction. Weight of rails to be 40 lb. on Bridgewater to Hamilton section, and 50 lb. from Hamilton to Oatlands.

*Bridgewater to New Norfolk, 10 miles.*—This section will be of a light character with some heavy work only near New Norfolk.

*From New Norfolk to Hamilton, 25 miles*—With careful setting out the greater portion of this section would consist of moderately light work, but there will be three bridges over the River Derwent, and three tunnels; viz., one about 10 chains long near Glenora, one about 40 chains long under Crone's Point, and one about 20 chains long between the Derwent and Clyde Valleys. All, however, would be through stone, easily excavated, and that probably will not require lining: excepting for some short distance the grades are practically level throughout this and preceding sections, but there will be many sharp curves.

*From Hamilton to Bothwell, 21 miles.*—About one-half of this section at the Hamilton end will be of a difficult and expensive character, while the other half passes through a comparatively level country. The difficulties begin close to Hamilton, from which place the line would have to rise some 1000 feet in a distance of 9 miles, of which 5 miles would be sideling cutting in ironstone; and on a succession of curves along the steep sides of the valley, the upper portion of the incline would be through a sandstone formation, and would end in about 30 chains of tunnel also through sandstone.

*From Bothwell to Oatlands Junction, 28 miles.*—After leaving Bothwell the first 8 miles to the Sideling Hills pass through a very easy country, but from this point to the crossing of the River Jordan the country is of a very rough character and the most difficult to get through on the whole line. A tunnel some 40 chains long would be required near the summit, and the grade must be contoured round the spurs of the range for some 4 miles (with sideling cuttings in sandstone rock), at a rate of 1 in 40; and further, owing to the abrupt slopes, one or possibly two reversing sidings would be necessary, with the alternative of very costly works. The distance between the lower and upper crossing of the Jordan requires works of a less expensive character, but immediately after crossing at the latter place a tunnel (through sandstone) of 25 chains in length will be necessary, but once passed, the line is practically a surface line all the way through Oatlands, and thence to the junction with the Main Line Railway at the Oatlands Station, or over a distance of about 11 miles.

I estimate the cost of the works roughly as follows; viz.—

	£
Bridgewater Junction to New Norfolk, 10 miles .....	45,000
New Norfolk to Hamilton, 25 miles .....	140,000
Hamilton to Bothwell, 21 miles .....	110,000
Bothwell to Oatlands Junction, 28 miles .....	135,000
TOTAL .....	<u>£430,000</u>
Miles <u>84.</u>	

And to this must be added a sum of say £15,000 for Rolling Stock to start with.

If this total expenditure is considered too large at present, I would suggest the construction of the portion of the line along the Derwent Valley to some point near Hamilton, whence its extension would, doubtless, eventually follow and form a main trunk line to the westward.

I have honor to be,

Sir,

Your obedient Servant,

JAMES FINCHAM, *Engineer-in-Chief.*

*The Hon. the Minister of Lands and Works.*