ment railway system, the demand for its reconstruction to accommodate express through trains from Auckland could not be resisted. The general travelling public, particularly tourists and excursionists, would not be contented with the slow service at present possible, and in consequence would not travel by the line, neither would they be content to pay the increased railway fare necessary if visiting Rotorua first, and having to return from Rotorua to Putaruru before going on to Taupo. The distance from Putaruru to Taupo by this route is 57 miles. One great objection to this route is the great height to which the line rises at Oruanui, whence it descends 650 ft. to Taupo.

The estimated cost of this route, improved to Government standard, is as follows (exclusive of what would be paid the company for such portions as could be utilized) :—

	£
Putaruru to Kopoko: 23 miles, improving at £1,800	41,400
Kopoko to 38 miles: 15 miles, reconstructing at £8,000	120,000
38 miles to 46½ miles: 8½ miles, reconstructing at £10,000 ...	85,000
46½ miles to Taupo: 20½ miles new line at £10,000	205,000
	£451,400

Several lines have in the past been constructed to much lighter standards than are now current, but the whole have now been brought up to present standards by relaying heavier rails, increasing the number of sleepers and quantity of ballast, widening the formation, and improving the station accommodation, in order to provide for the faster trains demanded by the public and the heavier rolling-stock required, and which must travel over all lines indiscriminately to allow of economical working.

2. *Putaruru to Taupo* via *Atiamuri*.

This route would follow the former route to near the crossing of the Waikato River, at 38 miles, where it diverges, either before or after crossing the river, as survey may show which is the better, thence follows up the Waikato River to a junction with route No. 3.

The advantage of this route over the former is that the portion of the private line between Kopoko and the Waikato River, a distance of about 15 miles, which includes passing over the Wawa Saddle, can be easily improved and shortened by tunnelling under the saddle, while the more difficult part between the river and 46½ miles is avoided, and it also avoids the ascent to Oruanui and descent thence to Taupo.

From the point of divergence from the company's line to the junction with route No. 3 a railway to Government standards can be easily and cheaply constructed. This route, however, is open to the same objections as No. 1 route, as it leaves Rotorua on a branch line. The distance from Putaruru to Taupo by this route is approximately 77 miles.

The estimated cost of a standard line, exclusive of payment to company for portions of its line utilized, is,—

	£
Putaruru to Kopoko: 23 miles, improving at £1,800	41,400
Kopoko to 38 miles: 15 miles, reconstructing at £8,000	120,000
38 miles to Taupo: 39 miles at £9,000	351,000
	£512,400

3. *Rotorua to Taupo* via *Orakeikorako*.

This route proceeds from Rotorua along the old Taupo Road to through the Hemo Gorge, where it diverges, pursuing a southerly course between the coach-road to Atiamuri and that to Waiotapu to the Whirinaki River, which it follows down to the Waikato River, which is followed up to a little past Orakeikorako, where it leaves and follows a nearly direct course to Taupo. The distance from Rotorua to Taupo will be about 56 miles.

This is a fairly easy route for a railway, no works of undue magnitude being required to obtain standard grades and curves. The disadvantage of the route is that it misses Waiotapu, and does not pass over such good country as route No. 4. There is nothing to recommend this route in preference to that *via* Waiotapu; on the contrary, the land is inferior, construction-works heavier, and the undulations of gradients are greater.

The estimated cost of this route is 56 miles, at £8,000 per mile = £448,000.

4. *Rotorua to Taupo* via *Waiotapu*.

This route follows the old Taupo Road through the Hemo Gorge, and thence generally the present coach-road *via* Waiotapu to Taupo, passing through Waiotapu. The length of the route is about 56 miles.

A railway along this route can be easily and cheaply constructed to standard grades and curves at less cost than any of the other routes. The estimated cost being, 56 miles at £7,000 per mile, £392,000, for a line suitable for an express train.

The difference in level between Rotorua and Taupo is 296 ft., and, as there are few rises and falls between, there is little more than the difference in level of the termini to overcome.

On the whole, it presents the best route for a railway to connect Taupo with the existing railway system, being easy to construct and possessing the possibility of rapid completion.

The sources of revenue will be—(1) Passengers; (2) timber from State forests; (3) farm-produce from the better class of country southward of Waiotapu. In addition it will prove an outlet to the pastoral country lying to the eastward of the Kaingaroa Plains.