

1909.  
NEW ZEALAND.

---

PUBLIC PETITIONS M TO Z COMMITTEE.  
ROUTE OF NORTH OF AUCKLAND RAILWAY:  
REPORT ON THE PETITIONS RELATING THERETO; TOGETHER WITH MINUTES OF  
EVIDENCE.

---

*Report brought up on the 23rd December, 1909, and ordered to be printed.*

---

ORDER OF REFERENCE.

---

*Extract from the Journals of the House of Representatives.*

FRIDAY, THE 8TH DAY OF OCTOBER, 1909.

*Ordered*, "That a Committee be appointed, consisting of ten members, to consider all petitions from M to Z that may be referred to it by the Petitions Classification Committee, to classify and prepare abstracts of such petitions in such form and manner as shall appear to it best suited to convey to this House all requisite information respecting their contents, and to report the same from time to time to this House, and to have power to report its opinions and observations thereupon to this House; also to have power to call for persons and papers; three to be a quorum: the Committee to consist of Mr. Buchanan, Mr. Buxton, Mr. Colvin, Mr. Craigie, Mr. J. Duncan, Mr. Forbes, Mr. Hogan, Mr. McLaren, Mr. Pearce, and the mover."—(Hon. Mr. BUDDO.)

---

REPORT.

---

Nos. 11, 251, and 281.—Petitions of J. J. SUTHERLAND and Others and T. NEILD and Others (together with similar Petitions as per attached Schedule).

PETITIONERS pray as follows:—

*Petition No. 11 and other similar Petitions.*—That the North of Auckland Railway-line shall not be deviated so far west as proposed, but retained on what is known as the "eastern route," and that a Royal Commission may be appointed to inquire into and report upon the circumstances concerning the suggested deviation of the line.

*Petition No. 281 and other similar Petitions.*—That the adoption of the western route may be adhered to.

I am directed to report that in the opinion of this Committee, the question being one for expert engineering opinion and public policy, affecting the needs of the greater number of settlers not served by water carriage, the question be referred to the Government for consideration and further inquiry.

23rd December, 1909.

JAMES CRAIGIE, Chairman.

## SCHEDULE.

No. 37.—Campbell, F., and 4 others.	No. 173.—Hayward, J. H., and 115 others.
„ 38.—Fraser, W. M., and 4 others.	„ 174.—Killen, J. M., and 27 others.
„ 39.—Fraser, J. A., and 135 others.	„ 175.—McKay, A. J., and 3 others.
„ 40.—Jones, F. C., and 24 others.	„ 176.—McLean, E., and 2 others.
„ 41.—McLean, E. M., and 12 others.	„ 177.—Tremaine, E. S., and 5 others.
„ 42.—Sands, E., and 135 others.	„ 178.—Weaner, E. O., and 84 others.
„ 43.—Wilkinson, A., and 7 others.	„ 207.—Baxter, W. W., and 63 others.
„ 44.—Wilson, J. S., and 2 others.	„ 208.—Blair, F. R., and 146 others.
„ 117.—Baker, J., and 9 others.	„ 209.—Cleary, H., and 27 others.
„ 118.—Colebrook, E. S., and 3 others.	„ 210.—Snell, H. R., and 39 others.
„ 119.—Allen, W. H., and 7 others.	„ 211.—Wilson, A., and 11 others.
„ 120.—Kay, G., and 30 others.	„ 239.—Crawford, W., and 174 others.
„ 121.—Reyburn, J. T., and 9 others.	„ 240.—Lamb, P., and 125 others.
„ 122.—Maslen, J., and 2 others.	„ 241.—Leslie, W., and 35 others.
„ 123.—McLennan, J., and 65 others.	„ 242.—McKenzie, H., and 22 others.
„ 124.—Robinson, E., and 43 others.	„ 243.—Salle, M., and 93 others.
„ 125.—Watson, F. G., and 11 others.	„ 251.—McLean, J. A., and 29 others.
„ 126.—Wyatt, F., and 5 others.	„ 256.—Clarke, A., and 11 others.
„ 143.—Jackson, T., and 23 others.	„ 257.—Edmonds, C., and 19 others.
„ 144.—Ferguson, J. B., and 12 others.	„ 258.—Hodges, G. F., and 51 others.
„ 145.—Kerr, J. C., and 42 others.	„ 259.—Howard, F. H., and 106 others.
„ 146.—Lord, H., and 21 others.	„ 260.—Keay, J., and 23 others.
„ 167.—Barnes, T., and 8 others.	„ 261.—McKenzie, J. H., and 3 others.
„ 168.—Beasley, C. J., and 4 others.	„ 262.—Money, H., and 81 others.
„ 169.—Brock, E., and 5 others.	„ 263.—Morris, T., and 8 others.
„ 170.—Brown, P. S., and nine others.	„ 264.—Rowse, R., and 166 others.
„ 171.—Carter, A., and 12 others.	„ 265.—Sutherland, N., and 14 others.
„ 172.—Griffin, W. J., and 2 others.	

---

MINUTES OF EVIDENCE.

WEDNESDAY, 1ST DECEMBER, 1909.

FRANCIS MANDER, M.P., made a statement. (No. 1.)

*The Chairman:* We should like to hear your statement, Mr. Mander. As our time is very limited, I would ask you to be as brief as you possibly can.

*Witness:* I will do my best, and will state the facts as shortly as I can. I have a lot of documentary evidence here that will take some time to go through.

*Hon. Mr. Buddo:* Can you not lay it on the table?

*Witness:* Yes, I can do that. As you are aware, Mr. Chairman and gentlemen, there is a petition before the Committee asking that a Royal Commission be set up to inquire into the proposed deviation of the North of Auckland Main Trunk Railway, and I am here to-day for the purpose of convincing the Committee, if I can, of the necessity for such a Commission being set up. Mr. Knorpp surveyed this line shown in red on this map. That line is called the "eastern route." That was surveyed by Mr. Knorpp some twenty-seven years ago, and has been followed by every engineer who has surveyed it since—namely, Messrs. Hales, Holmes, Vickermann, and Wilson; and all other engineers and surveyors have followed that red line, and have adopted Mr. Knorpp's survey as originally set out. In 1902 the railway was authorised to Maungaturoto, the schedule to the Authorisation Act of that year reading as follows: "An extension from a point on the southern boundary of Section 8, Block XVI, Otamatea Survey District, to Maungaturoto. Length about 23 miles." So it was authorised to that point. In 1904 it was authorised to Maungatapere Boundary, length about 20 miles. In 1907 there was a short authorisation to the Pukekaroro Ballast-pit: "A branch line from the Helensville Northwards Railway, in Section 86, Block XIV, Waipu Survey District, to the eastern boundary of Section 84 in the same block. Length about 1 mile." When a one-mile authorisation was given from the ballast-pit, that fixed this line as being the authorised line. A mile would not reach the ballast-pit from any other point than that. Now, in 1907 the Public Works Statement contained the following: "Beyond Te Hana a survey party is at work locating the railway towards Maungaturoto, and already has the line pegged for over ten miles. The location of this section has given rise to a good deal of local controversy, a considerable section of the settlers desiring a westerly diversion of the route, so as to carry it across the Otamatea River, near Young's Point, and through the Bickerstaffe Estate. The officers of the Department in the Auckland District advised a more central route, but in deference to the strongly expressed wishes of the settlers the then Engineer-in-Chief, Mr. W. H. Hales, made a special visit to the locality in December, 1905, and went personally over both routes, and reported, after due inquiry and full consideration, that the central route *via* Te Hana, Topuni Bridge, Kaiwaka, and Mount Pukekaroro was the best." That is the red line on this map. "Such a route would leave North Albertland, Te Arai, Hakarau, and Mangawai on the east, and Port Albert, Wharehine, and Otamatea on the west, and would almost equally divide the country, and bring the various settlements on both sides of the line within practicable distances of the railway. This report did not, however, seem to settle the matter in the minds of many of the settlers, as the agitation for a change of route still continued, and in May last the

newly appointed Engineer-in-Chief, Mr. R. W. Holmes, was sent to the locality to personally look into the matter. Mr. Holmes went carefully over the whole route in company with Mr. Vickerman, the then District Engineer, and he entirely supports the view taken by Mr. Hales. Mr. Holmes points out that immediately to the northwards of Maungaturoto there is a ridge several hundred feet in height which the line must cross, and to do this with the greatest ease it is necessary to keep at a good elevation, and this object is secured by locating it as proposed—viz., through Kaiwaka and close to Mount Pukekaroro. To deviate *via* Bickerstaffe would entail the line crossing navigable water close to Maungaturoto, and would locate it in a basin from which the only outlet would be by a long tunnel. As all the engineering authorities agree that the central route is the most direct and the best, it has been finally decided to adopt that route. It will be quite possible to connect by this route with the navigable waters of the Kaipara Harbour—namely, at Te Hana, Topuni Bridge, and Kaiwaka.” This report was made after full inquiry, as stated here. It has been stated, I know, by the other side, that the Engineer viewed the country from the top of a hill, and did not thoroughly examine the position; but this report, if it is true—and I presume it is—states that after full inquiry and examination the engineers had decided on the authorised route; and I have every confidence in the engineers, because they are the best that the country can produce, and they are all honourable men, and men who would not make a report of this kind unless they had made full inquiry and made sure that it was absolutely correct. Now, in 1908 we have the proclamation of this line, definitely fixing it to a certain point. The proclamation says, “Whereas the extension of the Helensville Northwards Railway from a point on the southern boundary of Section 8, Block XVI, Otamatea Survey District, to Maungaturoto (hereinafter termed ‘the said railway’) is a railway the construction of which is authorised by ‘The Public Works Act, 1908’: And whereas the said railway has been partly constructed, and it has been determined to construct and maintain a further portion of the same (part of Maungaturoto Section): Now, therefore, I, William Lee, Baron Plunket, the Governor of the Dominion of New Zealand, in exercise and pursuance of the powers and authorities conferred by ‘The Public Works Act, 1908,’ and in exercise of every other power and authority in anywise enabling me in this behalf, do hereby proclaim and declare that the middle line of the said further portion of the said railway shall be that defined and set forth in the schedule hereto.” And this is the schedule: “Commencing at a point in Block III, Otamatea Survey District, marked 81 miles 40 chains, which point is about one chain due south of the northern boundary and about 106 chains due east of the western boundary of the said block, and is also the terminating-point of the railway described in a Proclamation dated the 20th day of May, 1908, and published in the *New Zealand Gazette* No. 42, of the 28th day of May, 1908; proceeding thence generally in a northern direction for a distance of about 3 miles 40 chains, and passing in, into, through, or over the following lands—viz., south-west portion of Section 59, Block III, Otamatea Survey District; Sections 59, 61, 68, north-east portion of 76, south-west portion of 76, 113, south-east portion of 78, middle portion of 78, north-west portion of 79, 86, south-east portion of 105, northern portion of 105, north-west portion of 104, eastern portion of 103, all in Block XIV, Waipu Survey District—and terminating at a point marked 85 miles, about 34 chains due south of the northern boundary and about 26½ chains due east of the western boundary of the said Block XIV, Waipu Survey District.” Well, this is the 85-mile place [indicated on plan]; so this deviation does not go anywhere near that point. We contend that if, after all this evidence, and after the House authorising a railway in that direction and it being fixed by Proclamation to go in that direction—if a Minister or any one else can go through that country on a flying visit and upset the authorisations and the Proclamations and say that the line is to go in some other way, the authorisation of the House is altogether valueless. If the House decided to authorise the East Coast Railway round by Waihi, for instance, any Minister in power might, for reasons of his own, say, “I am going to have this railway taken round by way of Rotorua.” The positions are absolutely parallel. I think this Committee should demand of the Minister some reasons for making this very great change and compel him to show some compensating benefits from it. So far, we have not had any evidence to that effect at all, but, on the contrary, we have had a report from Mr. Stewart, engineer, of Auckland, and he says that this deviation—I am speaking of the first deviation now—will cost the country about £93,000 more than the route round the other way. That is a very strong reason why it should not go in that direction, unless it can be shown that there are very strong compensating benefits to be obtained by the western route; and we say that this cannot be shown. I will put in Mr. Stewart’s report, dated 30th September, 1909. [Document put in.] Then I have Mr. Mitchelson’s letter. It has been circulated among members, so it will not be necessary for me to read that, but there is another letter from Mr. Mitchelson, which he has sent because he cannot get here to-day, and it reads as follows: “For the reasons stated to you in my letter, I regret my inability to attend the meeting of the Committee for the purpose of giving evidence in connection with the Northern Railway Extension and route. I have not much to add to my previous letter on the subject which was addressed to the Minister of Public Works further than to protest against the statement made by some members of the deputation that recently waited on the Minister, which was to the effect that I was personally interested inasmuch as I was chairman of directors of the Kaipara Steamship Company. I am not, nor was I ever, chairman of directors of the company. I am a large shareholder and a director of the company, and, further, I have been a shareholder and a director for most of the time, extending for a period of over thirty-five years, during which time the shareholders have received three dividends, two each of 4 per cent. and one of 2½ per cent.; so there is not much to fight for in connection with the Kaipara Steamship Company; and, furthermore, having been connected with the company for so long a time, my interest in the company, had I been selfish, would have tempted me to make a different recommendation to the Stout-Vogel Government to that which I did—namely, fixing the route on the course which I have always maintained to be that on the east side of the Tangihua and to the west of the Maungatapere Moun-

tains. My opinion in this respect has never changed, nor will it change, no matter what the decision of Parliament may be. I am more than satisfied that, if competent men were appointed not only to examine both routes, but also to examine the area of the land to be served by each, which can only be done not by simply travelling over the routes, but by travelling over the lands to be served, which would mean travelling east and west, more especially to take note of the area of the land which would be rendered inaccessible by the adoption of the western route owing to the ranges of hills and mountains, which is a most essential point, and all the land to the west of the Tangihua Mountains could be easily and more cheaply served by a connection with the main line, either from Mititai or a point opposite Mount Wesley, both on the Northern Wairoa. The adoption of the western route not only shuts out practically the whole of the Whangarei County, but it also shuts out the whole of the lower Mangakahia, the Purua, Moengawahine, and Hikurangi Valleys, all containing lands suitable for sheep and dairy farms. There is everything to gain and nothing to lose by inquiry, and, if the Minister is confident that his decision is the right one, he should have no hesitation in recommending the appointment of a Commission." As I have said, sir, I think that some very substantial reasons should be given before such a drastic change as this is made; and no such reasons have so far been given. This is a statement that appeared in the *Auckland Star*—a Government paper (and I am simply quoting it for what it is worth) shortly after the Minister of Public Works had travelled through the country: "'From a constructional point of view, the country on the western route is everything in our favour,' is the reply of the Hon. R. McKenzie, Minister of Public Works) to the statement of the member for Marsden that the route chosen for the North Auckland Trunk Railway is a political deviation. 'The cost of construction,' says the Minister, 'might be regarded as about the same on both routes, as we have no definite data to go on at present to for an estimate, but, judging from my observations when travelling through the country, I should say that the route adopted will turn out to be cheaper and more economical, especially in view of the heavy constructional works between Pukekaroro and the Bald Hill, on the eastern route. The political aspect could not concern me, and Cabinet decided unanimously on the western route upon the evidence.'" The Minister practically tells the country that he has got no data to go upon. Judging by his own observation in going through the country once he has come to the conclusion that the western route is the best, and that is the only evidence so far that we have received in the matter. I asked the Minister for a plan of the route, and he could not supply me with one. He had no correct plan of the route, he said. It seems to me that the Minister was quite premature in coming to his decision. If he had gone through that country and from his own observation had decided that the western route was the best, it was surely the right thing for the Minister to get the engineers to survey that route, to have it thoroughly surveyed, and then come down with a report as to the cost of the line, its length, &c., and so satisfy the public that the route he had chosen he had chosen after due deliberation and consideration. But so far he has produced no proof that the route he has decided on is the best. I have put a notice of motion on the Order Paper three times. It reads as follows: "Mr. Mander to move, That there be laid before this House a return showing the cost, length, and full particulars of the proposed deviations of the North Auckland Main Trunk Railway from points of divergence from original line at northern and southern ends; also the cost of original route from same points." That is a very fair question to ask. The public have a right to know, when their money is being expended, whether the Minister's judgment is sound in a matter of this kind; but so far, though I have renewed that question twice, I have got no answer to it. I think the people have a right to a report before such a deviation is made. If it were a new railway there would be less argument, but we say that we have got very strong argument indeed in favour of the present route being maintained, and it is for the Minister to bring substantial evidence before this Committee, or the House, or the country to prove that the route he has adopted is the cheapest, the shortest, and will serve the greatest population. This I assert emphatically he cannot do, and I am prepared to put £1,000 into any charity that the Minister likes to name if he can bring down an engineer's report to the House to prove that the line he has adopted is the cheapest, the shortest, and will serve the greatest population. Now, the Minister made certain statements in regard to population. I do not suppose that the Minister intentionally misrepresented the position with regard to the population, because no doubt he got his information from his clerks; but his clerks are absolutely wrong. In making his calculations the Minister has calculated the whole of the Otamatea County as being on the west of the line, while it extends down to the east coast. He has calculated 1,000 of population there, which ought to be calculated on the eastern side. That is one mistake. Then, in calculating the population of the Whangarei County, he calculated the population on the east coast from that point [indicated], ten miles from the Whangarei Railway. If it is fair to leave out all that population twenty-three miles from the east coast when calculating the population of the eastern side, it is also fair, surely, to exclude the population the same distance from the Wairoa River on the other side. The figures shown on this map I have had certified by competent accountants. This other map [indicated] is an enlargement of one that appeared in the *Star*. I may say that we have suggested a compromise in this matter, to fix the matter up without any further difficulty, and this I believe can be done in the interests of all parties concerned. Only about two hundred settlers would be affected if the compromise we suggest is adopted. This is our suggestion: There is a point there called Rodgers's. We propose that the railway should come on as authorised at present, and then turn off to Rodgers's. [Proposed route pointed out on map.] That would get over all the difficulty about this line, and I am satisfied that it would suit every one, except the settlers on the Bickerstaffe Estate and Whakapirau, about two hundred in all. That would be a very sensible compromise to make, and it would save the country about £93,000, according to Mr. Stewart's report. We are going to stand by Mr. Stewart's report till it is disproved. He is one of the most competent engineers in New Zealand on railway matters.

*The Chairman:* I would call your attention to the fact that the five-minutes bell calling the House together rang some time ago.

*Witness:* This is an important matter, and I am representing two thousand petitioners. I think that as sensible men the Committee will see that the case I have made out in favour of the eastern route is a very strong one, seeing that all the engineers have reported in favour of it. The Hon. Mr. Hall-Jones, after going into all the evidence, decided that that was the right route to adopt; yet we have a Minister now who takes one flying trip through the country and decides, against all the evidence I have brought before you, that the other route is the best. I say that if the Hon. Mr. McKenzie is a clever-enough man to lay out railways like that, and he is right, then he is worth £10,000 a year to this country, and it ought to employ him as an advance agent to go and lay out railways through the country without having engineers at all. It is an utter impossibility for a man, after paying only a flying visit to the district, to come to such a conclusion. I am going to ask this Committee to call upon the Government to produce the Engineer's report, and also to summon the Government engineers, because we think the country has a right to all the evidence that can be produced, and we feel that the Minister should be only too pleased to produce every particle of evidence he can if the position he has taken up is a right one. I only want what is fair. I have never said a single word in regard to this affair that I am not prepared to utter from a pulpit. The figures on that map show that the location of population is entirely in favour of the eastern route—excepting in regard to sheep. The greatest population is going to be here [place indicated]. Further north this railway is being made for the benefit of the whole of the population of the North, and we say that no deviation of this line should be made to benefit any of the counties down here [place indicated] at the expense of the big population there is going to be further up in the future. We say that this railway is a main trunk railway, and the House ought to be very careful that no mistake is made in regard to it. This is the point [indicated on map] where the Minister proposes to take the railway across. Well, you can see that that is not the centre of the peninsula. It is twelve miles from the Wairoa River, seventeen miles from the coast on the west, and thirty-three miles from the coast on the east.

[In reply to questions, witness pointed out various places and indicated routes on the maps.]

*The Chairman:* You mentioned Mr. Stewart, of Auckland: is he in private practice?

*Witness:* Yes.

J. STALLWORTHY, M.P., made a statement. (No. 2.)

*The Chairman:* We shall be glad to hear you now, Mr. Stallworthy.

*Witness:* Mr. Chairman and gentlemen,—I have only one petition before you, I think. The other petitions—and there were a good many of them—were addressed to the Minister of Public Works and were sent to him direct. So that many persons have signed petitions that are not before this Committee. I will touch first on what Mr. Mander has mentioned as a compromise. That compromise the Minister has told us would cost the country £15,000, and add two and a half miles to the length of the railway for every person living north of the locality in question. Then, again, Mr. Mander tried to make a point of the Minister not having given him a plan of the adopted route. Work has been going on to the 77-mile peg, but it was stopped there on the instructions of the Hon. Mr. Hall-Jones, and until the last week or two nothing was done beyond that, because the Minister had not the survey plan to enable him to go on further with the construction-work. It was therefore quite impossible for him to supply a map showing the surveyed line. So that point, I think, is one that does not carry much weight. Now, last year a deputation came down from the North, and the prayer of their petition was that the Government, before proceeding further with the line than they had got, would survey the suggested western route. Up till last year—and the dates Mr. Mander has quoted were all prior to that—there had been no survey whatever of the western route, and the deputation asked that the Government would survey the western route before proceeding further with the line. Nothing more was asked than that. In support of the petition for a survey they very naturally quoted certain figures. The accuracy of those figures Mr. Mander doubts; but those figures were supported not by the verbal evidence of the petitioners only, but by a map—a very good map—made up from the county sheets issued by the Lithographic Department of the Government, and that map showed the population of each county and riding in the district. So that, whatever figures the petition gave, there was the map before the Committee. We asked simply for a survey. Now, the petitioners whom Mr. Mander represents to-day and who are here to give evidence were here last year, and their argument was this: "Do not grant a survey of the western route; do what the engineers have recommended." "Stick to the engineers" has been the cry of the opposing faction all through. Yet, at the same time, the engineers had never been over the western route. Mr. Hall-Jones has been mentioned. It was Mr. Hall-Jones who was in charge of public works last year, and to whom the deputation went after their interview with the Petitions Committee. A map was laid before Mr. Hall-Jones. Previous to that, I may mention, he had seen a map showing such a "kink" in the route as is shown on this map of Mr. Mander's, and I also had seen it. When I saw it I told the people that if the proposed line possessed a kink like that I would not support it. After that the western agitation flagged until we were shown that the map was a gross misrepresentation, and that the line could be made as straight in the one direction as in the other. The Minister, in giving the engineers instructions to survey the western route after the deputation had waited on him last year, put his rule on the place where construction had been stopped and on the place where it was agreed the line would go by either route and drew a straight line, and told the engineer to survey to that line as nearly as he could. The result of that survey has not been made known. But the alteration has not been made on the visit of Mr. McKenzie alone, as Mr. Mander appears to try to show. First of all, Mr. Hall-Jones was the Minister who was responsible

for what Mr. Mander calls fixing the line to a certain point. It was Mr. Hall-Jones who stopped further progress of the work when he heard the arguments of the deputation last year and saw their map. Then Mr. McNab went through the country. He strongly favoured the line going to Young's Point to touch the deep waters of the Kaipara, stating that in America lines were made to touch the water, for the benefit of the revenue of the railways. Other Ministers have been there. The Premier has been over the districts. Later than that, Mr. Fowlds went north. He met the settlers at different points, and heard their arguments. And then Mr. McKenzie, at the request of the Whangarei North Auckland Railway League, went through the district, heard deputations, and made the trip through the western country through which it was asked the line should pass. All the Ministers named having been in the locality and having heard the settlers, the matter came before Cabinet, and the Cabinet, by unanimous resolution—so we were informed—decided that the western route was the better, and adopted it. It is most unreasonable to suppose that a body of men such as the Cabinet would come to a decision of that sort without having facts and figures before them. We have had some of those facts stated in the House. The Hon. Mr. McKenzie has stated that the bridging is shorter on the western route, the tunnelling shorter, the grades better, and the maintenance would also be less. Then Mr. Mander took exception to the Minister, in the instructions he gave about the preparation of the figures regarding population, &c., and in directing the Department to leave out the district to the east of Kawakawa Railway. Mr. Mander says, twenty-three miles from the coast. The Minister's position was correct: we already have the Kawakawa line, and this line will become connected with the North Auckland Trunk Railway. Mr. Mander referred to Mr. Knorpp's survey. Mr. Knorpp was instructed to survey a line from Auckland to Whangarei. To keep on talking about Mr. Knorpp's survey is beside the question, for to-day we are seeking a main trunk line: we are not making a line to Whangarei. Mr. Knorpp's survey was not for a main trunk line; and, too, it was made many years ago, when the country was covered with bush. Mr. Mander has referred to engineer's reports. He read an extract from a Public Works Statement, quoting from Mr. Hales's and Mr. Holmes's reports. I put a question afterwards, and elicited the fact that Mr. Holmes, when he made this report in 1907, had not been over the western route: he had only viewed a portion of it from a mountain-top. Mr. Holmes also said that if they went to Young's Point or to sea-level there they would have a ridge of 700 ft. to climb afterwards, and that it would be necessary to make a very long tunnel to get out of that level. Now, the disproof of that is what the Minister has said, that the tunnelling and the grades on the western route would be less than those on the eastern side. So that Mr. Holmes is wrong there. When Mr. Fowlds was looking over the route the surveyor who was surveying the western route under instructions from the Minister accompanied us. When we came to the top of the ridge we stopped, and I asked the surveyor, "Did you find any difficulty in bringing the line up to this point?" and he said, "No." I asked again, "Did you meet with anything that would cause you to say that there was any extra difficulty in getting to this point?" and he answered, "No." I remarked, "Mr. Fowlds needs to take notice of that, because Mr. Holmes had said it would be impossible to get up the ridge if the line went down to Young's Point." The surveyor came to me afterwards and asked, "Did the engineers say that?" "Yes," I said. "Well," he said, "they must mean something further on." One thing that has caused a good deal of misconception has been with regard to McCarroll's Gap, and this misled Mr. Hall-Jones and also Mr. McKenzie for a while. It has always been recognised that the line must go to McCarroll's Gap. We were puzzled for some time to find out how the eastern line was to get to McCarroll's Gap, but we found out that the engineers had stretched the term "McCarroll's Gap." The Gap is a well-defined place. There is a plainly visible gap between the hills there, but McCarroll's Gap has been made by the engineers to reach some three miles further to the east—

*Mr. Mander:* Two miles.

*Witness:* It is more than that—and that has deceived in a great measure the people who were looking forward to McCarroll's Gap being the point the line would get to. Now, with regard to Mr. Stewart's report. Mr. Mander and those supporting the eastern route came to Wellington and interviewed the Premier and Mr. McKenzie together only some three weeks ago. The latter cross-examined Mr. Stewart, who is held up to you as an authority. He asked, "What length of tunnelling do you make at Ross's Hill?" "Twenty-eight chains," was the reply. "Well," the Minister said, "you are wrong there. The length is only 16 chains." So that Mr. Stewart's report, which says that the western route would cost £93,000 more than the other, is proved wrong at the very outset. Another question the Minister asked was, "What length of bridging do you reckon at Young's Point?" Mr. Stewart made a very long bridge. The Minister said, "You are wrong there also. There is only a little more of half of what you put down needed." And in other respects Mr. Stewart's figures, when tested by the figures which the Minister had, and which could only have been got from his engineers, showed Mr. Stewart to be out on very many important points. Mr. Mitchelson's name has been mentioned, and it carries some weight, because Mr. Mitchelson was once Minister for Public Works. Mr. Mitchelson was responsible in the old days for the line that was surveyed up to Maungatapere; and we know that naturally when a man has once decided on a certain thing it is very difficult to shift him. I saw Mr. Mitchelson when he was down here. I told him he was wrong in his statements, and he said he did not intend to discuss the line, and was going to say no more in reference to the railway route. He was also before Mr. McKenzie, and I was then with him, and he declined at that time to discuss the railway question any further. In a letter to the Press, when the Minister gave his decision, he said he still believed it was best to take the line to Maungatapere, but he thought it better not to retard the work: it would not matter so much as between the two. We have had the eastern called a central route, and it is most unfair for Mr. Mander and persons on the other side to talk of it as a central route. They ignore a good deal of the country on the western side because we happen to have a river there. But the railway on the east ought not to be considered. The Minister, in

giving directions for the preparation of statistics, instructed that the population on this railway-line and ten miles on either side should be omitted from the figures, because it is really a Kawakawa-Whangarei-Auckland railway. It was the intention of the easterners at the beginning that that should be the North Auckland railway, but this agitation has shown to the people that that will never do for a North Auckland railway. We have been successful thus far in preventing that scheme from being carried out, and Mr. Mander himself will not support that scheme now. He says that it is unfair, but he acknowledges it is what they first wanted. They still want to get it as near Whangarei as possible, though they know Mr. Mander will not support it. When we come to discover which is the more central they call ours the western and theirs the eastern. If you stand at Kaiwaka you are within eight miles of the east coast and thirty miles from the west coast. [Witness went on to explain by reference to the map where the two routes would go, and relative distances.] I think I must leave the other points, as time is so limited. What I want you to remember is that Ministers—the Premier, Mr. Fowlds, Mr. Millar, Mr. McKenzie—have all been to the district, and Cabinet has come to a unanimous decision in favour of the western route, after having the engineer's reports before them. I am sure they would not otherwise come to such a decision. But now you are asked, after Cabinet has come to a unanimous decision, that that unanimous decision and the fixing of the line—the Premier said that the line was definitely fixed—shall be upset or questioned by a Royal Commission. You see at once the position you put the Ministers in. It would really be an inquiry into the unanimous decision of Cabinet on a certain point. I do not fear a Commission, but I say, as was said by many of the petitioners to Mr. McKenzie, "Do not delay the construction of the line; for if you look into the matter we know you will come to a proper decision. I may say that I was not able to accompany the Minister beyond McCarroll's Gap, and Mr. Mander did not accompany him.

*Mr. Mander:* I accompanied him most of the way. I went as far as I could go in my buggy.

*Witness:* Well, this is the position: The Minister, a stranger to our district, has gone thoroughly into the question, and he has recognised the fact that the western route is the best. We have been told by Mr. Mitchelson and others on that side that the line should keep away from the water. I say that what we ought to do is to touch the waterways. We have boats from the south coming to the Kaipara. They come with produce and go back with timber. The people on the waterway are thus able to get produce from the south. If the railway is taken to Young's Point, the vessels with southern produce will be able to touch there, and many persons in the north will be able to secure produce from the south, which at present they cannot do. Mr. Mitchelson himself tells us that the Wairoa by-and-by is going to be such a district that it will have large freezing-works, and Home steamers will call there. Well, if that is going to be the case, the time must come when the country must connect Wairoa ports with the railway, and I say this is the proper time to do it.

---

THURSDAY, 2ND DECEMBER, 1909.

JAMES STEWART examined. (No. 3.)

1. *The Chairman.*] What are you, Mr. Stewart?—Civil engineer, practising in Auckland. At one time I was District Engineer for nine years odd in Auckland.

2. Will you state, briefly, what you have to say about this line?—Yes. It is more particularly detailed in a report which I made to the President of the Chamber of Commerce in Auckland. I made an examination of both lines extending over about nineteen miles—from 78 miles to 98 miles on the index map of the Otamatea County. These lines were furnished by the Hon. the Minister for Public Works. The first thing that I noticed as against the western route was the very large amount of bridging required over salt-water creeks, the Otamatea especially having a very large depth of water, stated to amount to 40 ft. I did not measure it myself, but there was a staff of men engaged in measuring, and that was the information I got from them. The width of the Otamatea is something like 17 chains at high water. I estimated the cost of a cylinder bridge there to be £30 a foot, and that I considered to be a very low estimate. I took 1,200 ft. at £30 a foot. I took 400 ft. of approach spans—principally on the eastern side—at £10 a foot. I considered also that a swing bridge is absolutely necessary there. At an interview which we had with the Hon. the Minister for Public Works on this subject some six weeks ago, he took exception to that length of bridging, and said that only 8 chains of bridging was intended, the rest to be solid embankment. Now, I think that that could hardly be indorsed seriously by his staff. As an engineer of some considerable experience in bridging, I would no more think of making solid end embankments on the Otamatea Bridge than I would if I were bridging the Waikato, for instance. But, with the depth of 40 ft. of water, and a height, say, of only 10 ft. above formation-level, I should think that his side embankments, necessarily being of stone, would cost just about as much as the bridge would. At all events, there is that amount of bridging required, whether it is solid or open. Then there are two other bridges required—one on the main line over the Kaitara, and one on a branch line—which I consider absolutely necessary for the ballast—at Pukekaroro, over the Kaiwaka. For these two I make 1,180 ft. of ordinary salt-water bridging. That I put at £12 a foot. The next thing I took notice of in the extra cost of the western line is the distance from the ballast. I took it that six miles and a half would be required. A line could be made from Pukekaroro, where the Department has been investigating by making several drives to bring ballast to the main line. That would be six miles and a half. That virtually means a certain additional length of line; but in regard to the length of line altogether, I find by the map I have mentioned that the eastern route extends at its 98-mile peg half a mile further to the north than the western route. Hence it is that distance shorter than the western route.



3. *The Hon. Mr. Buddo.*] Do you mean that the western line is longer than the eastern?—Half a mile longer. Then, on an examination of the eastern route my attention was called to a very sharp and long curve at about 86 miles. As it is drawn on this map it goes right into the hill, but that is a slip of the pen probably. It goes into a bit of bad ground, with the intention evidently of escaping a tunnel.

4. Is that eighty-six miles from Helensville?—No, from Newmarket. In making inquiries about this piece of ground I was told that a good few deviations had been tried. That, of course, I do not know about, but an amount of tunnelling was found necessary. At one place, I think, it was stated that about 9 chains was required, and at another something more. I personally had a look at a deviation which was stated to be the route that Mr. Knorpp took many years ago in exploring that line. I considered that a tunnel of about 15 chains would be needed. I went down to about the point where that would come out, and swept the country with an Abney level, and I came to the conclusion that a grade of about 1 in 40 from the end of that tunnel would reach the proper site at Maungaturoto Valley for the Maungaturoto Station. I judged that a mile would be saved in that loop by that means. That, added to the half-mile as shown on the map, gives a mile and a half less length on the eastern route than on the western. That mile and a half added to the six miles of ballast-line extra—six miles, because the ballast-line on the eastern route would be half a mile and that on the western six miles and a half—makes altogether between the main line and the branch line seven miles and a half; but, as the branch construction is naturally less expensive than construction on the main line, I took the extra length of line, as reduced to main-line construction, at five miles, and I put that at a very low cost indeed—£5,000 a mile as due to the extra length of line. Then I came to the conclusion that there was more tunnelling on the western line than on the other, but how much I could not say with certainty. Several of the tunnels I was able to estimate very closely. I made it that there was about 700 yards more tunnelling on the western than on the eastern route. Those tunnels I took at a moderate rate, too—£25 a lineal yard. My experience in fairly good ground is that it should be at least £30. Then came a very startling piece of information in going over the line. On the Bickerstaffe line I found about a mile and a half at least of the very worst slipping ground that I ever saw in my experience. The whole countryside there seemed to be on the move, as far as you could see on each side of the line. Fences and trees were leaning over. One feature is very significant: In a deep gorge between two high ridges there is a creek called Muddy Creek. The settlers there have called it by that name, I was told, for forty years. It was running discoloured then, and the discoloration I found was due to the constant creep of the hillsides on each side of that creek. The whole country there is a deliquescent marl. If that is cut open there, the atmosphere itself—no rain will be needed—will start it running, and the slope it will eventually take no man could say; and I could not and would not attempt to estimate the cost of running a railway through that mile and a half. I stated in my report that the cost I estimated of making the railway would be plus the cost of this mile and a half. As I was certain to be on the low side I put my estimate down at £93,000.

5. How many miles of construction and bridges did you reckon?—Nineteen miles and a quarter altogether.

6. *Mr. Pearce.*] Is this £93,000 in excess of what the other line would cost?—Yes.

7. You have estimated the cost of the other?—Yes. On the eastern line the only place where slipping ground cannot be avoided at all is a length of about 10 or 12 chains near Pukekaroro. The ground there, however, is of very moderate depth, and is very easily dealt with as compared with the other. The slips seem quite local. That is the only place where I saw signs of slipping; of course, there may be more. On the Bickerstaffe side, however, it was so patent that no one could pass over the ground without noticing it.

8. Are there no bridges on the eastern route?—No salt-water bridges. There are the usual culverts. I saw nowhere where it was absolutely necessary to put in viaducts.

9. *The Chairman.*] No big rivers?—No. Just at Kaiwaka I saw a good depth in crossing the Kaiwaka Stream, and I saw on the Public Works plan a 10 ft. culvert arranged for. Then there was a question of compromise regarding these routes. At about 93 miles a distance of about two miles and a half would join the two. [Place pointed out on map.] That would cut away the whole of the slipping ground, and probably would add £15,000 to the cost of the line. I believe that to go across at the place indicated is the solution of the whole thing.

10. *Mr. Buchanan.*] Have any borings been made for these tidal bridges?—I saw them boring as I passed.

11. Were the borings satisfactory?—I could not say. The Public Works Department have all that information.

12. Of what material did you propose the bridges to be?—Cylinder piers filled with concrete in the usual way.

13. And the life of these bridges, roughly?—A very long life indeed.

14. You mentioned the grade of 1 in 40 that would save a mile?—Yes.

15. Is not that grade steep? Would that compare unfavourably with the grade that could be obtained for the rest of that line?—I am not quite certain as to the steepest grade. I think that going up to one of the tunnels the grade is 1 in 40; but on the Wellington-Auckland Main Trunk line there are a number of grades of 1 in 40.

16. The point of my question is the disadvantage of a steep grade—that is, if that is the steepest grade?—I think that even with that loop to escape the tunnel they could not avoid a grade of at least 1 in 40.

17. What was the basis of your estimate for the cost of tunnelling?—Twenty-five pounds a lineal yard.

18. Is there no danger of unexpected rock, or anything of that sort?—That is for ordinary rock. If it were clay I should certainly put the cost at £30, but I believe that £30 is a safe price even in rock.



19. *Mr. J. Duncan.*] How many miles of line remain to be constructed to the 93-mile peg?—Fifteen.

20. You are equally familiar with both routes?—Yes.

21. And you say that, in your opinion, the difference in the cost of construction as between the eastern and western route is £93,000?—Yes, as the western route is laid out there. That, I am quite sure, is within the mark. And that estimate is not taking into account the line over this slipping ground, which I would not presume to estimate within £20,000.

22. Are the grades on both lines the same, or which is the better of the two?—I should say that the eastern route would be the easier grade, because it does not go down so close to high-water as the western route does. The western route practically goes down to sea-level, and it has to rise a good deal, while the other keeps about a mile or more to the eastward of Maungaturoto, on the higher grade. I consider that the eastern route has been beautifully laid out, and they have made the best of the route on the western side too, I think.

23. You are in favour of abandoning the rest of the eastern route from the 90-mile peg, and joining it to the western one?—Yes.

24. Because there the western route, in your opinion, is the better of the two?—Yes, and from the end of either line the cost further to the northward is very much the same—that is, you can go to the east or west of the Tangihua Ranges, as may be decided on, from either route.

25. Have you any information at all as to whether the country has sufficient population to make the extension of the line a paying concern?—Beyond where?

26. As far as the line is projected?—Oh! most certainly. It is part of the main trunk line. I am certain that the country warrants it now.

27. The population is large?—It is increasing, and the quantity of stock that is being taken down from there by all the available routes is increasing every year.

28. Is it agricultural country the line goes through, or pastoral?—It is all agricultural.

29. It is capable of growing cereals?—Yes, except about a mile up the mountain creek. There is a gorge there, and you can hardly call that agricultural country.

30. Is this country generally capable of high cultivation?—Yes, it is under cultivation now. But this is hardly in my department.

31. *Mr. Buxton.*] Up to the point of deviation on that eastern line, does the line run through good country there?—The country becomes very good at the point of deviation at Ross's Hill. The Kaiwaka country is better than the country behind. If you were there, and saw, as I have seen, the magnificent grasses and crops of turnips that are grown upon what a few years ago was considered irreclaimable gum land, you would be surprised, as I was.

32. It is largely farming land?—It is all ploughable.

33. *Hon. Mr. Buddo.*] In your statement you said that the nineteen miles and a half of line from the deviation was going to cost £93,000 more than a similar distance on the eastern route?—Yes, I said that.

34. How do you allocate that? Is it principally bridge-work?—About £50,000 of that would be bridge-work. Twenty-five thousand pounds of it would be for extra line, including the ballast-line. Then there would be about 700 yards of tunnelling. The tunnelling, of course, as I have not seen the sections, is the point on which I am not so certain as I am on the others. The tunnelling might cost more or it might cost less.

35. Looking at this matter as a business transaction, and with a view to the development of the country which the railway runs through, if you were the engineer for a private company which route would you take?—Most certainly the eastern route. I would have no hesitation whatever. Those bridges and that slipping ground would be a nightmare to me if I were obliged to go through there; in fact, I do not know that I would undertake to run a railway through that slipping ground.

36. Do you think the railway returns on the eastern route would be equal to those on the western?—So far as I can see they would; but, of course, that is not in my department. The east coast settlements just now labour under extraordinary difficulties. The Waipu is an old-settled place, and that is eleven or twelve miles from the Maungaturoto Station. That is a very important country, and it would be splendidly served by the eastern route. I consider that, excepting Whakapirau, this proposed compromise would make a line that would be to all intents and purposes as good as the western route. But that I consider is altogether out of the question—to spend not only £93,000, but a twentieth part of that, to reach a settlement—I mean Whakapirau—of something like five square miles. It is a peninsula, and round five-sixths of its perimeter there is good tidal water and good anchorage and wharfage.

37. What is the nature of the grades on the roads leading from the eastern side? I understand there is a low range of hills there between any of the routes and Waipu, we will say?—There is a gorge from Waipu to Maungaturoto.

38. Is the grade reasonable?—Quite. There is a beautiful road through it there—a traffic road through the gorge.

39. Are there any other roads, as you go further north towards Whangarei, through the same low range?—That I could not say. I have not examined that portion.

40. *Mr. Colvin.*] In what year did you make this survey?—A few months ago: 30th September is the date of the report.

41. For whom did you report?—I reported to the Chairman of the Auckland Chamber of Commerce at the request of several gentlemen interested in the routes.

42. You think the western route is not so favourable for a railway as the eastern route?—It does not amount to any thought about the matter. I am as certain as that I am standing here that the eastern is the most favourable route.

43. *The Chairman.*] You mean from an engineering point of view?—Yes.

44. *Mr. Colvin.*] The eastern route would pay as well as the western?—Yes; but that is not in my department.

THOMAS COATES, settler, Pukekaroro, made a statement. (No. 4.)

1. *The Chairman.*] We shall be glad to hear what you have to say?—I should like to state that I have been in the North Auckland district for over forty-three years. I have spent twenty years on this peninsula [indicated on the map], and the rest of the time—twenty-three years—at Pukekaroro.

2. Have you got property on the western route?—I have not, but my wife has. I have here a telegram from Mr. Litten, the Councillor representing Kaiwaka, Hakaru, and Mangawai, and in it he requests me to appear here to-day to represent those districts. I have also a telegram from Mr. Bowmar, of the Mangawai Railway League, asking me to attend here on behalf of the League. Here is another telegram from the secretary of the Railway League at Hakaru, asking me to attend. As I said, I have been in the country forty-three years. I am the owner of about 2,000 acres at Pukekaroro. I bought that land in 1885, and paid up to £10 an acre for it. It is kauri land. When the kauri is away from it it is really second- or third-class land. I mention this because Mr. Stallworthy has more than once spoken of me as being a great landowner; but, as I have a wife and eight grown-up children, I do not think that quantity of land is excessive. I have a small area of leasehold land near Auckland, but that 2,000 acres is all that I own. On this property there is a big quantity of stone. That is the natural product of this Kaiwaka district. It is a trachite rock, known as the Bald Rock. I have brought this photograph to give you an idea of the Bald Rock. [Photograph produced.] That rock contains about 50,000,000 yards of stone. A portion of it is in a slaty state, but about half of it is solid and without seam. It is a building-stone of very great value. The trachite in one form is of a slaty nature. It is easily broken, but is very hard.

3. Is it good for road-metal?—It is splendid for road-metal and for railway-ballast, and for pretty well every other purpose. I have sent samples of this building-stone to Mr. Speight, the geologist, of Christchurch, and also to Professor Scott, and I have here their reports upon it. [Documents put in.] Comparing this with granite, granite I believe has a breaking-strain of about 11 tons per square inch, whereas this stone has a breaking-strain of something like 16 tons per square inch. I have also a report by Mr. Fallen on this stone; also Mr. Pond's report and analysis. [Document put in.] I have in addition an analysis of agricultural limestone, and a report by Mr. Wiseman, the architect for the Auckland Harbour Board. [Documents handed in.] What I want to impress upon you is this: The North Auckland district has been known as the roadless North—for this reason: there is no stone obtainable there. After leaving Morningside, right up to Pukekaroro there is absolutely no stone whatever fit for ballast purposes, road-metal, or anything else. The cost at present of getting inferior stone—that is, rotten sandstone or the hydraulic limestone which has been used hitherto—is from 8s. to 12s. 6d. a yard. That is the cost to put it on the roads. The people have all been waiting for the extension; for the railway is the only means of distributing stone either from the Auckland end or the northern end. Then, again, after leaving Pukekaroro there is no other stone till you come to McCarroll's Gap—I suppose twenty miles further. This is the most serious thing for all the local bodies and the individuals living between those two places. [Places indicated on map.] Mr. Seddon, when opening the line to Kaipara Flats, promised the people all along the line that as soon as the railway was extended they should have a supply of cheap stone. I may say that the cost of breaking, quarrying, and putting this stone into trucks would not exceed 3s. a yard. There is also a deposit of agricultural limestone at Pukekaroro within a few chains of the railway, and, as this North Auckland country is clay land, a supply of this would be valuable for liming the soil. Then there is hydraulic limestone in abundance, also lithographic limestone, and we have, too, a mineral spring there. I should like to say that this eastern route was surveyed in the first place by Mr. Knorpp, thirty years ago, and has since been surveyed by Mr. Hanna, Mr. McInnis, and Mr. Holmes, and other engineers, and without exception they have all selected this route. I have here Mr. Holmes's report. Will you have it read?

*The Chairman:* We have it in the Public Works Statement—the essence of it, any way.

*Witness:* There Mr. Holmes speaks very strongly indeed in favour of the eastern route. The line is authorised to Maungaturoto *via* Pukekaroro, and it is fixed to Kaiwaka and beyond. I have here a letter from the Under-Secretary for Public Works to Mr. Litten, and this is the plan referred to.

[Document and plan handed in, and letter—as follows—read by the Clerk: “Public Works Department, Wellington, 5th October, 1908.—SIR,—Referring to your telegram of 28th ultimo, asking that the site of the proposed railway-station should be fixed as early as possible to enable the County Council to proceed with the construction of roads in the vicinity, I am directed by the Minister of Public Works to state that the site has now been fixed, and is shown on the plan forwarded herewith. It is situated a little to the north of the tunnel passing through the ridge on which is a district road, joining the main road near the accommodation-house. The precise route of the approach road to the station has not yet been finally decided upon.”]

*Witness:* As I have to speak here for the people of Hakaru, Kaiwaka, and Mangawai, I should like to point out that their outlet-hitherto has been through Mangawai, and that is a very bad bar harbour. It very often happens that steamers have to wait for even a week before they are able to enter the harbour. If this eastern route were adopted it would be a great gain to these people: they would be able to get away pretty well every day in the week. The population of those three places is 450, exclusive of Maoris and Austrians. A good deal has been said about the freights on

the western side and the eastern side. The freight to Mangawai is 15s. a ton and to Waipu 16s.; while the carting from Mangawai up to Pukekaroro is £1 5s. a ton in summer and £2 in winter—the latter on account of the state of the roads. I forgot to say just now with regard to stone that from 1903 to 1908 there was 47,262 pounds' worth of stone imported into New Zealand, chiefly, I think, from Australia. The Auckland Harbour Board are just about to put up a ferry-building at a cost of some £50,000 or £60,000, and it is their intention to import 10,000 pounds' worth of stone from Australia. The City Council, too, is building a town hall, and it has already imported bluestone from Australia at a cost of about £10,000.

*The Chairman:* But they might not select your stone. Some people are very particular.

*Witness:* That is so; but the report I have given you will prove that this is a very superior stone. With regard to the western route, I have here the petition presented by the advocates of the western route. In clause 4 they state, "That to the east of the present proposed line there are only some 900 people, who would be almost equally well served if a more centrally situated route were adopted." Well, that is very misleading. I have already told you that Hakaru, Mangawai, and Kaiwaka have a population of about 450, while Maungaturoto has some 500, and Waipu, close to, has 1,000. So that upsets that clause. Then, clause 5 has, I am afraid, misled Mr. McKenzie and all connected with this business. It reads, "That to the west of the present proposed line there are now 7,500 people, who will be practically prevented from making use of the railway when completed." If this were correct I should not have a word to say against the line being taken to the west; but it is altogether wrong. These 7,500 people are on the western side, of course. The bulk of them are on the Wairoa River. I want to point out that it is impossible for the Wairoa people to use this line if it is taken over the river at Young's Point. I have had this measured on the map by a surveyor, and the distance from Dargaville down to the Heads is forty miles, and from the Heads to Young's Point is thirty-six miles—seventy-six miles in all. Well, the distance from Dargaville to the Heads and to Helensville is seventy-eight miles—only two miles further than going up to Point Curtis. When they come to Point Curtis—if that route is adopted—they have then a drive of forty-two miles by railway before they get to Helensville. This, I am sure, has misled Mr. McKenzie and others.

4. Seven thousand people could not make use of that line?—That is so. What I suggested to Mr. McKenzie was that in place of this zigzag route the eastern route be adopted, so that the local bodies from Auckland to Pukekaroro would get the benefit of the stone; but instead of adopting the eastern route right through, make a deviation from here to here [points indicated on map and distances explained.] The only people who would suffer a little would be the people at Whakapirau; but there are three deep-water landings—at Whakapirau, Batley, and on the Otamatea River—and they are within five hours' steam of Helensville. The people from Raupo to Helensville get there in four hours. Now, it has been stated by the advocates of the western route that the freights to Kaipara from the south are 10s. a ton. That is perfectly true. They have the benefit of those freights, yet they are asking for this railway to be taken to the west. They know that the freights by the railway would average £1 10s. a ton. With regard to the quality of the soil, there is a splendid swamp here [indicated on map], of perhaps 40,000 acres; but, on the other hand, the whole of this country [indicated] is the very worst quality of soil you can get, being gum land, and a part of this peninsula [indicated] is the same. At Matakohē there is some very good country. It is all nonsense to talk of the soil on one side being better than on the other—I mean comparing west with east. It must be remembered, too, that the best fruit is grown on the poorest land. There are people at Port Albert on very poor land making a thousand a year out of their orchards.

5. *Mr. Buchanan.*] Does this hill in this photograph contain the stone that you have been describing to us?—Yes. It belongs to me.

6. Would this stone be used for ballasting either line?—Either, I believe; but you will understand that I do not really know what the intention of the Government is. I have heard that they propose getting ballast from the Wairoa River. As to the cost of the stone at Pukekaroro, I will guarantee that it can be quarried and put on the trucks at 3s. a yard. I will do it myself for that.

7. In one of these documents the statement is made that the cost of winning the stone would be so high as to make it dear for building purposes?—Oh, no! That stone can be put on the market in any of the towns in New Zealand and sold at a very much lower rate than the Melbourne stone.

8. *Mr. Buxton.*] With regard to Young's Point, where the railway crosses, we were given to understand in evidence yesterday that if the deviation were carried out boats would be able to come up to the railway to serve the whole of the country with produce, and there would also be an outlet for stuff produced in the district. Is that the same by the eastern route and the western?—The North Auckland line touches the Kaipara waters at Helensville.

NORMAN FINLAYSON, of Maungaturoto, made a statement. (No. 5.)

*The Chairman:* Will you make your statement now, Mr. Finlayson, as briefly as you can?

*Witness:* I will be as brief as possible. I represent the settlers of Maungaturoto on the Otamatea County Council and have done so for the last few years, and I have a telegram that I received from Waipu asking me to say a few words for them. When this western route was decided on we held a public meeting at Maungaturoto. It was the largest I have seen there, and the meeting was unanimous that it would be against the interests of the settlers of Maungaturoto and the interests of the whole Dominion to adopt the western line; and we decided at that meeting to oppose it, principally for the reason that our butter-factory, the mainstay of the settlement, is on the central road, with a level road. The western-route station would be away north, practically outside the Maungaturoto Settlement. So that for heavy goods we should still be obliged to use the

waterway, which comes within 10 chains of the butter-factory. Besides, we were looking forward to getting metal from Pukekaroro delivered right through the centre of the settlement. As to the price of metal at present, a tender received last week for the supply of metal to the County Council was at 11s. 6d. a yard. So we decided to go through the mud rather than pay that. We had paid 8s. 6d. for it for the last two summers. Mr. McKenzie made a statement in the House that his only regret in adopting the western line was that it would take the railway a few miles further away from his friends at Waipu. He also stated that it would bring the line within easy distance of Whakapirau and Pahi. Well, any one who knows the place knows that Whakapirau has deep water, and that steamers can call there at any time. In fact, our passenger traffic at the present time goes through Whakapirau. I believe that Mr. McKenzie was not fairly treated when he came through the district. He came there a perfect stranger. He was met in Auckland by the people favouring the western route, and they were on his track, I may say, all the time. The matter was put in a one-sided manner to him. In regard to Waipu I should like to say a few words. When the first settlers came there fifty-five years ago a cutter could be run up five or six miles. Then it gradually closed up till it ran into a sand-flat; it closed up altogether as far as navigation was concerned. Then the settlers had a road made some fourteen miles to Masterton Point; but the sand drifted on to that, and it was not satisfactory in any case. The people had to be landed there any time during the night, and then had to coach fourteen miles through the sand to Waipu. Then they decided to try and open an entrance through the sandhills, and all the able-bodied men of Waipu worked a whole summer. They got it cut through, but a storm came and closed it up. The following winter an unusually high fresh came, and opened the entrance out and made it available for boats to come in; but owing to the shifting nature of the sand they could not use it unless they protected it with stone and fascines and so on. The settlers applied to the Government for assistance in this matter, and Mr. Hall-Jones went to Waipu and examined the place for himself. He sent two experts to report; but the experts could not recommend the spending of any money, on account of the shifting nature of the sand. Mr. Hall-Jones, however, told the people that the Government would find the money and assist them to keep the entrance open until they were able to avail themselves of this railway. They have been looking forward to this railway coming within fifteen miles; but Mr. McKenzie makes it eighteen, thus practically cutting them off altogether. When Mr. McKenzie was through, the Waipu people were quite satisfied. Sir Joseph Ward had two years ago said they would not be cut off from the railway, and, the railway having been determined by the Government to go through Maungaturoto, they did not think there would be any change made. I do not think the people mentioned the matter much to Mr. McKenzie when he was through, because they were satisfied it would not be shifted. I think they paid more attention to giving him a Highland welcome there.

FRIDAY, 3RD DECEMBER, 1909.

R. W. HOLMES, Engineer-in-Chief, Public Works Department, examined. (No. 6.)

1. *The Chairman.*] Will you make a statement, Mr. Holmes, telling us anything you know about this railway?—I would prefer to be examined.
2. *Mr. Mander.*] You remember, in 1907, Mr. Holmes being instructed to go and examine the country up there in regard to the various routes?—Yes.
3. You are familiar with this reference to the matter in the Public Works Statement of 1907?—Yes.
4. Is what is there stated a correct statement of the position?—Yes.
5. Is it not a fact that the railway already crosses the Kaipara waters in three places, at Te Hana, Topene, and Mainini—the railway crosses those three streams?—Yes.
6. If the people on the Wairoa side wanted to fetch the railway here [place indicated on map], would it not be a more sensible thing for them to bring it to this point [indicated], thus saving twelve or fourteen miles of railway?—They could not reach the railway-line quite.
7. A short branch would have to be made so that they could come at any state of the tide?—Yes.
8. Do you not think that is better than going to great expense and making this great curve [indicated], and so making the line longer?—If they were proceeding to Auckland they would save railage.
9. Fourteen miles of railage?—Yes.
10. You would catch all the Port Albert people as well, would you not?—That would depend upon the class of traffic you wished to divert that way. The water is much shallower.
11. It is not absolutely necessary that the bridge should cross at that point [indicated] in order to give the Kaipara people an opportunity of reaching the railway; they can reach it at this point [indicated] now at high-water?—In small boats, yes.
12. When you made that statement contained in the Public Works Statement, you were perfectly satisfied that you were correct in agreeing with Mr. Hales in regard to that route?—Yes.
13. Have you changed your opinion in any way since that date?—No. I still think, from an engineering point of view, that the eastern line is the easier line to construct.
14. When you made your examination of that route did you merely stand on the top of a hill and decide by observation which was the better route?—I looked over sufficient of the country to satisfy myself.
15. Is it not a fact that the engineers have been at work on that deviation through Bickerstaffe for some considerable time trying to find out a line for the railway?—Yes, we had a trial line surveyed through.

16. You were present when Mr. Stewart gave his evidence yesterday?—Yes.

17. Do you think he exaggerated the position at all in regard to that route through Bickerstaffe?—I think he was a little on the large side in regard to his estimates, and the difficulty in connection with the magnitude of the bridge over the Otamatea.

18. Will that bridge not be altogether about 17 chains in length, including the fillings on both sides?—The exact length of the bridge is 1,200 ft.

[At this stage it was decided that members of the Committee should first examine the witness.]

19. *Mr. Buchanan.*] You were asked just now whether you had changed your opinion expressed in the portion of the Public Works Statement that we had read yesterday, and you replied somewhat in this form, "I still think, from an engineering point of view, that the eastern route is the cheaper"?—Yes.

20. How about from other points of view? Which is the better with regard to grade?—There is no difference.

21. From the point of view of cost of construction, what, in your opinion, would be the difference?—I think the eastern line would be the cheaper, but by how much I am not prepared to say.

22. Are you able to form any opinion as to whether Mr. Stewart's estimate of the difference—namely, £93,000—would be an overestimate or an underestimate?—I think it is an overestimate.

23. There would not be that difference?—No, not nearly that difference.

24. Do you happen to know anything of the mile and a half of slipping ground to which Mr. Stewart attached great importance?—I have been close to it.

25. Did you examine it sufficiently closely from an engineering point of view to form an opinion in accordance or otherwise with Mr. Stewart's?—Yes. I do not think what he said was exaggerated at all. I think it was a fair statement of the case with regard to the slipping ground.

26. What about the respective distances?—There is not much difference in the distances up to the point they were discussing yesterday—93 miles, I think it was.

27. *Mr. Pearce.*] Has there been a detailed survey of the proposed deviation—the western route—giving the quantities and everything of the kind?—No, not all the way. We have a detailed survey to a little beyond Young's Point.

28. That is just over the waterway?—Yes. Beyond that we have only a trial survey, in which the quantities can only be approximate.

29. What is the proposal of the Public Works Department as regards that bridge concerning which Mr. Stewart said it was proposed to fill a portion in and make a shorter bridge?—We have not considered that very fully, but if an embankment were made at all we should have to make it of rock or some material that would not slip.

30. How can you arrive at an estimate if you have not considered these questions?—It does not matter much either way. The cost would be about the same.

31. As shown on that map, there is a tremendous curve in that proposed deviation just where it crosses Young's Point. Is that anything like the real line?—It is not quite right here [place indicated.] It should be more direct.

32. Mr. Stewart made the statement that the grades must be worse on the western route than on the eastern because the railway at Young's Point goes down almost to sea-level, while on the eastern route it would keep up alongside the range all the way. Is that so?—No, they are just about the same. The total rises and falls on the two routes up to 93 miles are practically the same.

33. It was stated that you had to go into a ballast-pit, and from the eastern route this branch line would only be half a mile, while from the western route it would be about five miles: could you give us the exact distances?—Not yet. I am still having some survey-work done with a view to discovering some shorter route.

34. Would you think that is approximately correct—about four miles difference?—I am in hopes of being able to shorten it down to about three miles and a half.

35. You think it would be either three or four miles longer on the western route?—Yes.

36. Is it absolutely necessary that that ballast-pit should be tapped for use on the line and for the district as well? Is there no other supply to be got?—The only other supply that we know of is at Hukatere, on the Wairoa River.

37. Would that piece of line, three and a half miles long, be of use in any other way than to tap the ballast-pit?—No, I do not think so.

38. That would be added cost to the western route?—Yes.

39. *Mr. J. Duncan.*] Had you anything to do with the selection of the first route—the eastern route?—Yes, I examined it and reported in its favour, and the Government adopted my report.

40. What are supposed to be the advantages of the deviation?—I believe the advantages are that it will give better access to the inhabitants of the Paparoa district.

41. Does the railway, before it impinges on that branch of the Kaipara, touch any other portion of the Kaipara?—Yes, at Helensville.

42. How far below is that?—A little over thirty miles.

43. Helensville, then, actually serves the Kaipara people, does it not?—Yes, at the present time it does.

44. To get to the 93-mile peg, how many miles remain to be constructed from the present terminus?—The present end of the open line is at Wellsford, at 69 miles on the railway mileage. The railway is practically completed up to about 77 miles.

45. What is the distance from where the deviation starts to the 93-mile peg?—The deviation starts a little beyond the 77-mile peg.

46. Did Mr. Stewart, in giving us his estimate of £93,000, mean that it would cost that much more to get to the 93-mile peg by the western route than by the eastern?—I understood him to mean that.

47. What is your estimate, roughly, of the cost of the sixteen miles remaining to be constructed to the 93-mile peg?—We have not any detailed estimate.

48. How much a mile, roughly?—I think we estimated it at about £10,000 a mile.

49. Mr. Stewart estimated that the western route would cost £93,000 more than the eastern. That would mean that your estimate for the eastern route is £160,000, and that Mr. Stewart's estimate for the western route would be £253,000, plus any additional cost for that mile and a half of difficult ground?—Yes. I reckon that the eastern route would probably cost £10,000 a mile, and that the western route would cost a little more—not a great deal; not as much as Mr. Stewart said.

50. You are not in accord with Mr. Stewart in his estimate that the western route would cost £93,000 more than the eastern?—No.

51. What is your estimate for the western route, roughly speaking?—We went into the matter a little while ago, and we reckoned, without allowing for slips, that the western route up to that point would cost about £10,000 more than the eastern route.

52. That is £160,000, as against £170,000, for the sixteen miles of railway to the 93-mile peg?—That was it, approximately.

53. Then your approximate estimate and Mr. Stewart's are very wide apart?—Yes.

54. *Hon. Mr. Buddo.*] You are thoroughly intimate with the rival routes for the North Auckland Railway?—Yes, fairly so.

55. You have been over both routes?—Yes.

56. When did you first make a survey?—In 1907.

57. Had there been any previous survey?—There were exploration surveys carried out by Mr. Knorpp in 1885, I think it was.

58. Did he make a detailed survey, or only what is known as a flying survey?—A flying survey.

59. That, I presume, is entirely relying on elevation and depression?—Yes.

60. Have you been over Mr. Knorpp's original route? Did you go over it up, at any rate, as far as parallel with Whangarei?—His route is practically the eastern route.

61. You have been over it?—Yes.

62. Have you been over the other route closely, up as far as parallel with Whangarei?—Yes.

63. How long ago?—I have been over it off and on during the last two years—nearly three.

64. Have you been over it sufficiently to express any opinion as to its value as an investment, entirely apart from colonisation policy?—I have always been under the impression that the eastern route was the better one.

65. From what point of view?—The general serving of the country.

66. Assuming that you had instructions from a firm that wished to put a railway through this district, you would naturally feel that you had to consider not only ease of construction but also the financial returns when finished: have you looked at the matter from that point of view in connection with either of these routes?—Yes.

67. Apart from your profession, you have some knowledge of country from an agricultural or pastoral point of view?—Yes, to a moderate extent.

68. Which of these two districts do you think it would be more profitable to put a railway through?—I do not think there is much to pick and choose between them.

69. Is it not a fact that the eastern route runs along the base of a low line of hills, which are not of anything like as much value as the land to the westward?—Only for a short distance.

70. How many miles?—I think that 93 miles is beyond the end of the Waipu Range. You strike the Waipu Range practically at Pukekaroro.

71. Seeing that the distance is so slight between the rival routes to McCarroll's Gap, is it not advisable, in your opinion, to go through the greater centre of population and the better quality of land?—Well, if the water carriage were not in existence I think I should feel inclined to favour the western route.

72. You have a good deal of bridging on the western route—more than you have on the eastern?—Yes.

73. Are there any engineering difficulties in the bridging of the western route?—There is nothing out of the ordinary.

74. In tunnelling is there likely to be encountered any difficulty more than usual?—No, nothing more than usual, on either route.

75. With regard to this mile and a half of slipping ground that Mr. Stewart told us about, is that likely, in your opinion, to be seriously detrimental to that route?—Of course, it is detrimental, but I do not regard it as of an exceptionally serious nature. We have had slips of the same description to deal with before, and they have been successfully handled. There is one on the North Island Trunk line, just south of the Poro-o-tarao Tunnel, that gave a lot of trouble for many years, but it is not doing so now.

76. It has been estimated that the 16½ miles of railway would cost £93,000 more than the departmental estimate. Do you think it possible, on a £160,000 estimate for 16½ miles of construction, to make an underestimate of £93,000?—No.

77. *The Chairman.*] This, I understand, is to be a main trunk line, to serve not only these particular districts, but the far North. When the line is running would there be any extra expense in maintenance on the western route as compared with the eastern?—Barring the short piece of bad country that has been mentioned on the Bickerstaffe Estate, I do not think there would be more than very little difference, if any, in the cost of maintenance of either route.

78. It would cost more for ballast on the west than on the east?—Yes.

79. *Mr. Buchanan.*] Could you give the Committee any idea of the depth to which the earth moves in this slip that has been mentioned?—No, we have not done any prospecting yet.

80. *The Chairman.*] I understand that from an engineering point of view you favour the east-coast route, as it will cost less and the line be easier made?—Yes.

81. And you think that the production on the east coast is about equal to that on the western route?—I would not be prepared to answer that.

82. *Mr. Mander.*] With regard to the bridge across the Otamatea River, do you not think it would be a mistake to block the navigation of that river if it could be avoided without great disadvantage? Do you not think it would be necessary, in the event of a bridge being put across that river, to have an opening span?—I do not think so.

83. Would you build the bridge high enough to allow of vessels going underneath it?—I would build it high enough to provide for the class of vessel that is likely to navigate the waters above Young's Point in future.

84. Do you know what class of vessel is already trading to Maungaturoto?—The principal vessels going up there are oil-launches.

85. Is there not also a steamer running there regularly?—I am not sure about that, but a scow goes up occasionally.

86. Will your bridge be built high enough to allow of a scow going under it?—No.

87. Do you think, in the face of probable extension of settlement and increased trade demands in the future, it will be wise to build a bridge across that river that will block scows from going up to such an important district as Maungaturoto?—The scows are dependent for their trade at the present time for timber, which will very shortly come to an end.

88. Is it not probable that other trades may arise in the future? Are there not likely to be big quarries developed at Pukekaroro? Do you not think there is a probability of other trades arising in future that may require other vessels to come up?—It would be cheaper to get stone at Wairoa by vessels than to go to Pukekaroro.

89. I presume, Mr. Holmes, that in deciding on the eastern route the engineers took all these matters into consideration that have been mentioned—the bad country at Bickerstaffe, the bridge across the river, and all these circumstances?—Yes, certainly.

90. And after finally considering all these matters they decided in favour of the eastern route?—Yes.

91. You consider, of course, that it would be an advantage to go *via* Pukekaroro for ballast?—Yes.

92. You could ballast your line much cheaper, I presume, if the railway went past there?—Yes.

93. You would save the  $3\frac{1}{2}$ -miles connecting-line?—Yes.

94. You did not include these three miles and a half in making your estimate of £10,000 in the difference in cost of the two lines?—No.

95. If you reduced the distance of that short line to three miles and a half, that would make the cost about £35,000, and with the £10,000 that you estimated the difference would be £45,000 in favour of the eastern route?—No. The ballast-pit line would not cost £10,000 a mile. It would probably be less than half that.

96. At any rate, whatever it cost would be added to the difference in cost between the two lines?—Yes.

97. It would be a very great advantage, would it not, to go *via* Pukekaroro, for other reasons—for road-metal for the settlers and for ballast for the line, &c.?—Yes.

98. What do you reckon you could get ballast delivered on the trucks for at Pukekaroro, provided the line went that way?—About 3s. 6d. a ton.

99. And what do you suppose it would cost you from the Wairoa River?—About 7s.

100. And what would it cost to continue delivering it from Auckland, as you are doing now?—It has cost us about 6s.

101. Then, taking the line past Pukekaroro would mean a considerable saving in ballast alone?—Yes.

102. Is it not a fact that in various places the North Island Main Trunk line passes through bad country?—Yes.

103. Is it not the case with almost every line that some portions go through bad country in order to get to the good country further on?—Yes.

104. You have not made a careful estimate, have you, of the cost of the western route as far as McCarroll's Gap? You could not state definitely what the cost would be?—No.

105. It is merely an approximate estimate that you have made?—Yes.

106. Which line do you think would have the most acute curves?—They are about the same.

107. You are referring to the lines on this side of McCarroll's Gap?—Yes.

108. What do you think of them further onwards?—There is not much difference between them. We can locate a line to standard construction *via* either way with equal facility.

109. *Mr. Buchanan.*] What would be the radius of the curves?—Seven chains and a half is the sharpest curve we are using at the present time on the main lines.

110. *Mr. Mander.*] You cannot give any cost of the line further on?—No.

111. You are aware, I presume, that the country through which that line will pass from McCarroll's Gap is covered a good deal with water in the winter-time?—In places.

112. You do not understand anything about the population at all on the other side, do you?—No, I have not gone into that.

113. You are aware that the Wairoa River here [place indicated on map] is a splendid navigable water?—Yes.

114. Are you aware that the people here have for the last two years been getting a very large proportion of their produce delivered from the south, and that last year £14,000 import duty was paid on goods delivered here by southern boats and Australian boats?—I believe that boats have been delivering goods from Australia.



115. If the railway is brought over here so close to the Wairoa waters, it is not likely to get as much trade, do you think, as if it were taken right up through the centre? Is it not the people in the centre of the peninsula that will require railway communication more than the people close to these navigable waters?—It is my personal opinion that a railway-line should keep as far as possible from navigable water.

116. By adopting the authorised route through the centre that would be accomplished?—Yes.

117. *Mr. Stallworthy.*] You told us that you would prefer the western route had the western people not got water communication. Do you not understand that by touching deep water at Young's Point you would give access to the railway to all those people on the borders of the Kaipara estuaries? and would not that be a very great source of revenue to the railway?—I think that any one living, we will say, in the region of Batley and outside that would prefer to go to Helensville instead of coming back and incurring the greater railway distance to get to Auckland.

118. Do you mean to tell me that people living at Batley would be going back when they went to Young's Point?—Certainly.

119. How far are they from Young's Point?—About then miles, I should think.

120. We have other points touching the Kaipara waters, but I take it Helensville is the only one that is of service to the Kaipara people?—Yes.

121. At Young's Point there is water for vessels of considerable size, is there not?—Yes.

122. In going to Helensville do the people not then have to use the railway?—Yes.

123. Do you know anything at all about the Port Albert fruit traffic, which only last season was going by steamer to Helensville?—I am not intimately acquainted with it.

124. Do you know that Port Albert is considerably nearer to Helensville than Young's Point is?—Yes.

125. It is on another river altogether?—Yes.

126. If the fruit trade of Port Albert has ceased to go by steamer and is now going by railway, is not that an indication that the present water communication is not satisfactory to the people?—I believe that Port Albert people are sending their fruit up to the train because they are not very far away from the train; also they are able to place the fruit in the railway-trucks themselves, instead of having to intrust it to strangers to handle at Helensville Wharf. It saves damage.

127. You do not agree that a bridge at Young's Point would block navigation?—It would block some navigation.

128. It would not allow a "Dreadnought" to go through?—No.

129. But it would not block the navigation that is going through there at the present day?—It would block the scows that are at present going up above there to obtain kauri logs.

130. You do not know how many scows that would have affected in the last year or two?—There was one there the other day when I was there.

131. You made a survey of the eastern route. Did you follow Mr. Knorpp's survey? Did you take Mr. Knorpp's survey of 1885 as a guide to your survey of the eastern route?—Approximately, but I did not go upon it entirely. We satisfied ourselves by re-examination of the country that we were following the best route along the eastern side.

132. When was the western survey made?—We had a trial line made from Bickerstaffe northwards just after last Christmas.

133. Until then no survey had been made of the western route?—A survey had been made across to Bickerstaffe some years ago.

134. From where?—Topuni.

135. And no further?—No.

136. Therefore you practically had not surveyed the western route until after Christmas?—That is so.

137. But before that you had stated your preference for the eastern route. You once said that if we got down to the level of sea-water at Young's Point it would be impossible to get up. Did you say that, or something to that effect?—It would be impossible to get into Maungaturoto. Maungaturoto was the objective, some years ago, before the question of going to Paparoa cropped up.

138. Your statement to that effect was made because you were trying to reach Maungaturoto?—Yes.

139. You were not considering a main trunk line?—Oh, yes! but a main trunk line passing through Maungaturoto.

140. How far does the main trunk line go now from Maungaturoto by the western route?—Three or four miles.

141. Maungaturoto Post-office—is that where you take your stand from?—About there.

142. And how far is the eastern route, as surveyed twelve months ago, from the Post-office?—I could not say exactly, round the road, but the Maungaturoto Railway-station would be just close to the English Church at Maungaturoto, on the cross-road.

143. My point is simply this: that until after Christmas you had made no survey of the western line?—Not beyond Bickerstaffe.

144. The other part—up to Bickerstaffe—is a very small portion, is it not?—Yes, of the whole route.

145. Have you considered the two routes in reference to a direct line from Topuni to Mangakahia?—Yes.

146. You went through with the Minister, I believe, what they call the western route?—Yes.

147. Were you not impressed with the country in that direction?—Yes.

148. It is very fine country, is it not?—Yes.

149. Taken as a whole, is it not very much finer country than the other, from a settlement point of view?—I would not be prepared to answer that question.

150. From, say, Topuni, how many miles of country would you go through that is poor country? Is it not twenty miles or more before you get into population, leaving out Maungaturoto?—I do not think there is much to pick and choose between as far as the country is concerned, if you except the Tokatoka Swamp and the piece of country that Mr. Riddle is holding. All the rest of it is good and bad mixed.

151. What settlements are there on the eastern side of Maungaturoto?—Waipu, Hakaru, Mangawai, Kaiwaka.

152. The line goes through Kaiwaka by either route, does it not?—Yes.

153. On the other side, I am talking about?—There is a very fine piece of country known as the Tara.

154. What extent of country is that?—I should not like to say.

155. Is it more than 2,000 acres?—I could not say.

156. Do you know the settlements on the western side at all?—Yes, I have been out through Matakoho and Paparoa.

157. And Batley?—I have not been quite into Batley.

158. There are several settlements on the western side, are there not?—Yes.

159. *Mr. Mander.* I should like your opinion with regard to this proposed compromise, Mr. Holmes. [Suggested compromise explained by reference to map.] Do you not think that would be a sensible compromise to make?—It is hardly for me to say, I think.

160. If it met all the people over there [district indicated] equally well, would there be any sense in going to extra expense by taking the line round that way [indicated]?—I should prefer to go *via* the eastern route to Maungaturoto and down the Paparoa Stream and join the western route there. You would get as near to the Paparoa people.

161. Would you not get as near to the Pahi people and all the others on that side?—Yes, they would have to come through Paparoa.

162. *Hon. Mr. R. McKenzie.* Mr. Mander pointed out the line across these creeks [indicated on map]. Is it not a fact that part of the railway is already finished?—Yes.

163. It was practically finished before I went over the route at all?—Yes.

164. Now, coming to this enormous curve shown on this map, is that curve in the western route at all, as laid down and adopted?—No, it is not that shape. The other map shows it accurately.

165. Is that curve there at all?—It bends off.

166. Is not the curve shown on this map a distortion?—Yes.

167. Now take this map. The deviation starts at this point, 77 miles 30 chains, and from here to Young's Point you have practically a straight line?—Yes, fairly straight.

168. As to the question of navigation at Young's Point, how far is it from where you cross Young's Point up to Kaiwaka?—Not very far.

169. Could they go up two miles further?—I presume three miles further.

170. And to Maungaturoto?—About two miles further.

171. That is all the navigation that we should close?—Yes.

172. You reported in favour of the eastern route some years ago?—Yes.

173. You are aware that the railway was authorised some years ago? You see here, in a schedule to the Public Works Act, that a section on the Helensville Northwards Railway was authorised, I think in 1904, from Maungaturoto to Maungatapere Parish?—Yes.

174. Were you Engineer-in-Chief then?—No.

175. Did you report to the Government in favour of going to Maungatapere Parish at any time?—The first time that I reported was in 1907.

[Route discussed on plan.]

176. You reported in favour of this route [indicated] in 1907?—Yes; I was dealing then only as far as Maungaturoto.

177. That was after it was authorised? You reported in favour of it after it was authorised?—Yes.

178. And that authorisation carried you to that point [indicated]?—Yes.

179. Why did you not stick to that? Have you ever been authorised to deviate from it?—No.

180. So that, to carry out the letter of the law, if the line were continued on the eastern route, it would have to go to that point, would it not?—Yes, strictly speaking.

181. You reported in favour of the eastern route: were you ever over this part [indicated] of the western route before or at that time?—I was not over the western route when I made the recommendation in 1907 that the eastern route should be adopted as far as Maungaturoto.

182. Or should be adopted altogether?—No, I did not make any recommendation beyond Maungaturoto.

183. You made a statement before a parliamentary Committee last session that the eastern route is the better?—No, I was not before the Committee last session.

184. As a matter of fact, when you recommended going eastward of Pukekaroro you did not know which would be the better route as a whole?—No, not as a whole.

185. With regard to ballast, how much do you pay the Railway Department now for ballast?—It costs us about 6s. delivered.

186. Is it not 5s. delivered on your line?—It is costing us 5s. on the railway-trucks at Wellsford at present, and we run it ourselves.

187. So it is really costing you now 5s. You made a statement that the difference would be as between 3s. 6d. and 7s.?—The 7s. was for the Hukatere ballast.

188. For how far does the eastern line run at the foot of the Waipu Range?—About twelve miles.

189. Are you sure it is not twenty-five?—It is not that.

190. When you recommended that route, do you know whether the intention was to connect the railway with the Whangarei-Kawakawa line when the authorisation was passed?—No, I am not aware.

191. Can you tell the Committee, then, whether from here [point indicated on map] to the Whangarei-Kawakawa line there is an easy line to be got?—I would not say you could get an easy line across.

192. Do you know the country?—I have just been across it.

193. It is flat country?—It is undulating.

194. Supposing the Government decided on connecting this line with the North Whangarei line, and making the Whangarei line a section on the North Auckland Main Trunk line, how much construction would be saved?—You would save practically the whole length of the line through from Whangarei to Kaikohe.

195. Say thirty miles?—I should think so.

196. Would that be a reasonable proposition for the Government to put forward, to connect with the Whangarei line and use that portion as part of the North Auckland Main Trunk line?—I do not think so.

197. Why?—It is too near the eastern seaboard for the Main Trunk line. It would be better to take the Main Trunk line up the centre of the Peninsula.

198. Can you tell us the distance of the authorised line from Whangarei?—I could not say.

199. I am told it is nine miles?—It is more than that, I should say.

200. Even if it is fifteen miles, by doing that you would save thirty miles of railway-construction. Do you think that that influenced the Government at that time to authorise the railway to this point [indicated]?—It may have been so. I could not say at all.

201. You said that detailed plans from 37 miles 30 chains to Young's Point were ready?—One set of detailed plans.

202. You have not submitted them to me yet, have you?—For part of the way, I think, they have been submitted—as far as Kaiwaka.

203. But not as far as Young's Point?—No.

204. So that there are no detailed plans finished beyond Kaiwaka?—No.

205. At the time you reported to the Government on this line was there any possible data available by which you or Mr. Stewart or any other engineer could estimate, except as a rough guess, what the cost would be?—No.

206. It would be a purely rough estimate?—Yes.

207. So that neither Mr. Stewart's views, nor your own, as far as the cost of construction is concerned, are of much value?—It is not close estimating.

208. It might cost a thousand or two a mile more or even less?—Yes.

209. So that, when Mr. Stewart submitted yesterday that the western route would cost £93,000 more than the eastern route, he had no data on which he could base an estimate?—No.

210. Such data is not in existence?—No.

211. So that, speaking from an engineering point of view, you would have no hesitation in stating that that was a pure guess on Mr. Stewart's part?—Yes.

212. I think Mr. Stewart made a statement in connection with the cost of the bridge across Young's Point. I understand he said it would cost £36,000. How much do you reckon it would cost?—I estimated the cost at about £24,000.

213. Coming to this slipping country that Mr. Stewart referred to, whereabouts is it?—A short distance beyond Young's Point.

214. What is the angle of the ground? Have you got the railway cross-sections there?—We have cross-sections along the line.

215. Have you got the cross-sections of the formation along that particular part?—I am not sure.

216. So that possibly the line may be located on level country when Mr. Stewart reckons it is on country liable to slipping?—I know it is not level.

217. What would the angle be?—It varies a good deal; anything from 2 to 1 down to level.

218. Have you any idea how far it would be from the Maungaturoto Post-office to the site where the railway-station is located now?—No, I have not gone into the question of locating the railway-station.

219. I have, and find it is a mile and a half—that is, on the western route. How far would your station be from the Maungaturoto Post-office on the eastern route?—About a mile, I should think—perhaps more.

220. With regard to the ballast-siding, at present there is no authority to deal with that ballast-siding in any way as far as you are concerned?—Not the construction.

221. You have no Ministerial authority to do anything in connection with it?—Only to get some information.

222. It may never be used?—That is so.

223. You know there are several samples of ballast down at my office at the present time?—Yes.

224. Some are satisfactory and some are not?—That is so.

225. And you also know there is an outcrop of rock near Paparoa within about half a mile of the route of the railway, and there is also ballast to be got near McCarroll's Gap?—No, I did not know about that.

226. And, of course, when you get up beyond Waikiekie there is a mountain of ballast?—Yes, at Maungakaramaea.

227. When these matters were under consideration you submitted to me a table of the rises and falls?—Yes.

228. Can you tell us which line has fewer rises and falls on it, and has consequently the easier grades?—The fewer rises and falls were on the western route.

229. By a considerable amount?—About 100 ft.

230. You also submitted to me the length of tunnelling on each route?—Yes.

231. Did you report to me that there were 41 chains more tunnelling on the eastern than the western route—that is, from the point of deviation to the point of junctioning?—Yes, I think that was the case.

232. And did you report to me that there were 740 ft. more bridging on the eastern than on the western route?—No, not on the eastern. There was more bridging on the western route, I think.

233. I am including viaducts. However, I will leave the point, and you can refresh your memory. You did not go into the statistics of this matter from a commercial point of view?—No.

234. Were you familiar with the country when Mr. Knorpp made his survey in 1885?—No.

235. Would it be fairly well covered with timber at that time?—I believe it was.

236. There is a difficult piece of railway coming in here [place indicated on map] through that gorge?—Yes.

237. Round here between Bald Hill and Pukekaroro it is very rough country for railway-construction, is it not?—Fairly rough for a mile or two.

238. I suppose it is impossible, taking this line as a whole from point of deviation to point of junction, for any one to say what the approximate cost would be by either route?—That is so. I should not like to hazard an opinion.

239. Do you think there is any other engineer in New Zealand who could do it?—No.

240. No one has anything but the configuration of the country to go by, as seen by going over it, and, of course, your trial surveys?—No.

241. *Mr. Mander.*] Having considered both sides and examined both routes, are you still of opinion that the eastern route is the best from an engineering point of view and from the point of view of the best interests of the country?—I have already answered that question.

242. *Mr. Buchanan.*] Mr. McKenzie put a question as to whether, prior to giving an opinion that the eastern route was the best, you had an opportunity of coming to a conclusion as to the western route, and your answer was that you had not—you had never been over the ground. Did that apply to the whole of the western route or only portions of it—in other words, had you been over some of the western route?—I had been over some of it.

243. To what extent?—Just round about Maungaturoto.

244. So that your opinion expressing preference for the eastern route was come to with a passive knowledge of the western route?—I made two reports on this matter—one in 1907 which dealt with the part of the line up to Maungaturoto, and subsequently one dealing with the whole.

245. *Hon. Mr. R. McKenzie.*] Was your report dealing with the whole railway made in 1907?—No, this year.

H. J. H. Blow, Under-Secretary for Public Works, examined. (No. 7.)

1. *The Chairman.*] Have you any statement to make, Mr. Blow?—No. After the very full evidence Mr. Holmes has given I do not know that there is much I can add; but if there is any question you wish to ask me, I shall be pleased to answer.

2. *Mr. Pearce.*] Which has been authorised, the eastern or the western route? There is an authorisation of the eastern route shown on that map: is that so?—No. There is an Act of Parliament authorising the construction of a railway to Maungaturoto, but the route is not defined.

3. We had a letter, signed by yourself, read yesterday, regarding a railway-station site at Kaiwaka. In it you stated that the site was fixed. This was in reply to an inquiry by the County Council asking that the site be fixed as early as possible to enable them to make roads to the station. Would you mind pointing out that site?—May I see the letter? [Letter handed to witness and read.] “Referring to your telegram of 28th ultimo, asking that the site of the proposed railway-station should be fixed as early as possible, to enable the County Council to proceed with the construction of roads in the vicinity, I am directed by the Minister of Public Works to state that the site has now been fixed and is shown on the plan forwarded herewith. It is situated a little to the north of the tunnel passing through the ridge on which is a district road, joining the main road near the accommodation-house. The precise route of the approach road to the station has not yet been finally decided upon.” This is dated the 5th October, 1908.

4. Whereabout is that proposed station?—At Kaiwaka.

5. Is that below the proposed deviation?—It is beyond the point of deviation.

6. Which is it on—the eastern or the western route?—I am afraid I cannot say. That is an engineering point. The plan is here, and it may speak for itself. It is just below Kaiwaka that the deviation starts.

7. Which route was it fixed on?—It must have been on the eastern route, because at that date there was no proposal to go by the western route.

8. Then we are to understand that the Department had actually decided where the site of the railway-station was to be on this eastern route?—Yes.

9. Now they propose to deviate it from that line altogether?—Yes.

10. Do you know whether this County Council have made roads to the station-site, or have opened up the country to the railway-station?—I do not think they have; but I would point out that the letter says, “The precise route of the approach road to the station has not yet been finally decided upon.”

11. *Hon. Mr. Buddo.*] Are you acquainted with the country which these two routes go through?—I have been over the eastern route, but not the western.

12. You are not acquainted with the western route at all?—No, only that from vantage-points on the road along the eastern route you can get a bird's-eye view of a lot of the country on the western.

13. When visiting that locality did you form any opinion as to the nature of the country, with a view to railway-construction through it? I am not speaking about engineering difficulties, but from a commercial point of view?—From a commercial point of view I think the advantage is in favour of the western route, because it goes through much more agricultural land and it does not reach so high an elevation.

14. You have had engineers' reports from time to time on these two routes, which are available in your Department?—Yes.

15. Have you formed any opinion as to these routes—I mean an estimated-cost point of view?—The engineering reports are, so far, in favour of the eastern route from a first-cost point of view.

16. Is there very much difference?—We have never had a complete estimate yet of the cost of the western route.

17. You cannot, therefore, give any opinion as to the difference in cost?—None other than Mr. Holmes has given just now.

18. I suppose you are not interested in the matter from a "working railway" point of view in your Department, are you?—I think we are very much so. I think it is the business of the Public Works Department to construct railways that will pay.

19. Am I to infer from your previous remarks that, on the evidence before you, you favour the western route?—Yes, from a traffic-producing point of view I do.

20. How long have you been connected with the Department?—Thirty-six years.

21. And that is your opinion, based on experience of the management of the Public Works Department?—Yes. It is not so much my business to consider the engineering point of view as it is the Chief Engineer's, but it is my business to consider the commercial point of view.

22. *Hon. Mr. R. McKenzie.* You are aware that this question was before this Committee last session?—No, I do not think I am aware of that.

23. Are you not aware that the petition in connection with the survey of the western route was before the Committee last session?—If so, I was not called.

24. If this Committee last year recommended the Government to make a survey of the western route, that would no doubt influence Mr. Hall-Jones, as Minister for Public Works, not to allow a station-site to be fixed at Kaiwaka until the survey was finished?—No doubt it would.

25. I will get the exact recommendation of the Committee in a minute. Now, Mr. Blow, when this question was under consideration I gave you instructions to get the statistics for me. I gave you a map with a line drawn right across here [place indicated on map] to within ten miles of the Whangarei Railway?—Yes.

26. And another line drawn across from here [place indicated] to here [indicated]?—Yes.

27. Did I not instruct you to get me statistics from the Lands Department as to the area of land to the east and west of the eastern route?—You did, sir.

28. And also, from the Registrar-General, the population within the same area?—Yes.

29. And from the Agricultural Department the stock within the same area?—Yes.

30. Would you mind telling the Committee what the results were?—As to the area of land, the total area eastward of the eastern route for the railway, but excluding the area served by the Whangarei-Kawakawa Railway, is 313,300 acres. The total area to the westward is 681,000 acres.

31. A difference in favour of the westward of—?—368,000 acres.

32. The area is more than double on the westward?—Yes. As to population, the total population to the eastward of the eastern route—excluding the Whangarei district as before, because, as that country is well served by the present railway, it was not considered that we could fairly take it into account—is 3,316. The total population to the westward of the route is 9,109.

33. More than double the number?—Much more than double. As regards live-stock, east of the proposed route, 1,714 horses, 13,976 cattle, 1,250 pigs, 11,186 sheep; west of the proposed route, 5,075 horses, 44,913 cattle, 3,096 pigs, and 80,940 sheep.

34. Does that cover all the statistical information available for determining the route of the railway?—I think so. We went to the best sources of supply—to the Lands Department, the Registrar-General, and the Agricultural Department.

35. What is the difference in the number of sheep?—There are over seven times as many on the west.

36. And in the head of cattle?—Rather more than three times.

37. So that there is more than double the area of land, nearly three times the population, and seven times the number of sheep?—Yes.

38. I have now the report of the Committee last session: "Petition of A. W. Balderson and 20 others of Kaiwaka, and 39 other similar petitions as per schedule attached.—Petitioners pray for an alteration in the proposed route of the North Auckland Railway. I am directed to report that the Committee is of opinion that before the North Auckland Railway is extended north from Topuni, as at present proposed, the Government be recommended to make an exhaustive survey of alternative routes in order that the best interests of the various districts may be served." In the face of that recommendation would Mr. Hall-Jones, as Minister for Public Works, be justified in suspending the authorisation of any railway-station at Kaiwaka until after that survey was made?—Quite, I think.

39. Did he ever approve of a railway-station site being laid out on the eastern route at Kaiwaka?—This letter that has been read states that he approved of the station.

40. Is there any approval on the files?—I have not got the files here, and cannot say. What was the date of that recommendation?

41. It was at the end of last session?—This letter was written in October, so that probably the recommendation was made subsequently to this.

42. Anyhow, that survey has been undertaken since?—Yes.

43. And now a Proclamation has been issued revoking the original Proclamation, and proclaiming a portion of the new route?—Yes.

44. And work is proceeding on the new route at the present time?—Yes.

45. *Mr. Mander.*] In calculating the population on the eastern side of this route, did you take in the whole of the Otamatea?—I did not calculate it. I got the information from the Registrar-General.

46. Are you aware that the whole of that part of the Otamatea County down to Mangawai, which lies eastward of the route, was included in calculating the population on the western side?—As I say, I did not make the calculation, consequently I cannot explain the details.

47. In calculating the population to be affected by a main railway-line which will carry cattle right into the Auckland market, do you think it fair to leave out twenty-three miles from the coast on this eastern side because there is a little railway leading to the water, and to include the whole of the population on the other side, when there is there a beautiful river leading to the railway?—I think it would have been absurd to include the population of Whangarei, considering that the district between Whangarei and Kawakawa is or will be served by its own railway and a daily steamer to Auckland, with a deep-water wharf at both ends of the line.

48. Is not the other side served by a beautiful river connecting with the railway?—No, not all of it.

49. Are the cases not parallel?—I do not think they are at all parallel. Of the population you refer to on the western side, many have an opportunity of getting down to the Wairoa River, but many of them will be quite as near to the railway as to the river, and it would be quite as easy or easier for them to take their traffic to the railway as it would be to take it to the shipping-place on the Wairoa River. Then, if they send it by water they have got to pay wharfage, and freight it down to some convenient station on the railway, and then in the end to pay railway freight; so I think they would take their traffic straight to the railway. On the other hand, traffic from the Whangarei line will never come to this line at all.

50. Do you suppose that the people who raise cattle and sheep up here [place indicated on map] will ever put their cattle on this short railway to go to Whangarei and ship them on to Auckland?—I think that the volume of traffic derived from the Whangarei-Kawakawa Valley by this railway will be very small indeed.

51. Do you not know that in all cases where a railway goes through a district the people naturally feed it as much as possible—to go to the market as direct as possible?—There will eventually, I have no doubt, be a connection between this line and the Whangarei Railway.

52. Is not that a good way in the future?—I should think not.

53. Are you aware that the calculation made in regard to population on the eastern side excluded the population on the eastern side twenty-three miles from the coast? There was a straight line drawn across from the Kirikopene Valley. Are you aware that twenty-three miles from the east coast was excluded from the calculation, and only ten miles from the Kirikopene Valley, where the railway is to cross, was included?—I can only give you the same answer as before—namely, that I am not responsible for the figures, and cannot explain them.

54. Are you aware that, if the railway crosses at Kirikopene as proposed, it will be only twelve miles from the main Wairoa River on the western side and thirty-three miles from the east coast on the other?—Those figures are probably fairly correct.

55. Do you think that is the way to reach the people in the centre—by putting the railway so far to one side of the country to be traversed?—I think a railway should be located as conveniently as possible for the bulk of the people who will require to use it.

56. Do you not think the people in the centre of the peninsula will be the most likely to use it?—Yes; but it very much depends on what you call the “centre.”

---

WEDNESDAY, 8TH DECEMBER, 1909.

JOHN ALEXANDER WILSON, District Engineer of Public Works, examined. (No. 8.)

1. *The Chairman.*] Will you make a statement of what you know about this railway, or would you rather be asked questions?—I would prefer to be asked questions.

2. *Mr. Buchanan.*] Are you in charge of construction of the Main Trunk line north of Auckland?—Yes, as far as the boundary of my district, which is about McCarroll's Gap. Then the North Auckland district comes in.

3. Is there any other engineer in charge on the section further north than that?—Not on any section that is under consideration.

4. Are you well acquainted with the rival routes, east and west?—Yes.

5. Which do you consider the better line, taking all things into consideration, such as cost of construction and maintenance, and the facilities afforded for the transport of goods and passengers generally?—I consider the western route is preferable from the points of view you have mentioned.

6. First, as to cost of construction: Are you in a position to give a reasonably approximate estimate of the cost of construction, comparing one line with the other?—I have formed an estimate in my own mind from examining the country and the plans, but I have not seen the official estimate.

7. Is there any data available as to both routes which would enable you to form a reliable estimate of the cost of the two lines?—Yes, there is data that would enable a reliable estimate to be formed. A trial survey has been made of each route, which enables a reliable estimate to be formed for comparative purposes.

8. The Committee has been informed that on the western route that data is not available, or what there is is imperfect: is that correct?—Not so far as I know.

9. That answer appears to imply that you are not quite sure as to the data available?—I know that trial surveys have been made of both routes. I have passed them through my hands in Auckland and sent them to Wellington.

10. Are you of opinion that the construction of the line on the western route would not cost appreciably more than by the eastern route?—That is my opinion.

11. As to the cost of maintenance of the line when constructed, can you give the Committee an opinion upon that point?—That is rather a difficult question to answer. To tell what a line will look like when constructed and how it will stand is a difficult matter when one has only a trial survey to go on.

12. So-much bridging is required for each line. What would be the cost of maintenance of each in that case? Would there be any appreciable difference?—I should like the Committee to understand that I am not prepared to go into details of cost of maintenance on the two routes, for want of sufficient data.

13. You are not prepared to offer an opinion?—No.

14. Then, as to the class of country to be served, and the number of passengers and stock, and so on, that would be available for traffic, can you give the Committee any information in regard to that? How would one line compare with the other from these points of view?—I have not looked into the question of the traffic at all. It has not been my business to do so. I have been dealing with the questions of survey and construction. I believe that the matter of the prospects of the two routes has been looked into, but not by me.

15. How long have you been in that district?—Two years and a half.

16. You have, then, had an opportunity of acquiring a general knowledge of the features and characteristics of the district?—Yes.

17. *Mr. Pearce.*] You are the District Engineer for this particular section of the railway?—Yes.

18. You said there had been a trial survey made: who made that trial survey?—Several engineers were engaged on the trial surveys. There was a trial survey made of each route, and a good many engineers were engaged. The plans all went through my office.

19. The engineers were under your control?—Yes.

20. Was there not a detailed survey made of the eastern route?—Yes, to the 85th mile only. [Point indicated on map.]

21. Is it a fact that the sites for the stations were fixed on that portion?—Yes.

22. Has any work been done at all in the way of formation or anything of that kind on that portion?—No, none at all.

23. Do you think that the flying survey you have had made of the western route gives enough detail to enable you to state, as you stated just now, that there would be very little difference in cost as between the two routes?—I consider it sufficient for that.

24. You are sure of that, although you say it was only a flying survey?—It was a good trial survey, not a flying survey.

25. It gives you enough data, you think?—It is the test that is usually applied to different routes before you make a permanent survey.

26. It has been mentioned by another engineer that there is about a mile and a half or two miles of slipping ground on this western route?—Yes.

27. What is your opinion of that?—There is a mile and a half of slip ground that is undoubtedly bad country to make a line through. It is between the Otamatea River and the Whakapirau Road.

28. You say you can form an estimate by the trial survey you have made. What is your estimate for making and maintaining the railway through this particular piece of country?—I am not prepared to deal with the question of maintenance. I do not consider the information before me is sufficient to enable me to do so.

29. I suppose that from this trial survey you know the amount of bridging that is to be done on each line?—I have seen the bridging.

30. What is your estimate of the cost of the bridging on the eastern route?—I have made no estimate of the cost of bridging, per bridge.

31. I am asking for the total bridging?—I have made no estimate of the total bridging on either route. I have priced the work that we have done already, and have made an estimate so far as the permanent survey goes—a close estimate for each route—that is, to about the 85-mile peg on the eastern route and to 84 miles on the western route—and I have estimated the work beyond that, mile by mile, as closely as possible, judging by work that has previously passed through my hands. I have never been asked for a detailed estimate.

32. We are given to understand there is a large bridge on this line. Is this 84-mile point this side or the other side of Young's Point?—Yes, there is a large bridge there.

33. Does it include the bridge?—Yes.

34. The 84 miles is over the bridge?—It is up to the bridge.

35. You are not prepared, then, to give an estimate of the cost of that bridge?—I have formed an idea of what it will cost.

36. What is that idea?—It is not a detailed estimate. I think the bridge would cost £17,000, without the approaches.

37. Do you consider you are justified in saying the two routes would cost practically the same, on the flying survey you have made? You have only details of the first five or six miles out of eighteen?—I consider I am justified in doing so.

38. *Mr. J. Duncan.*] You have been two years and a half in the district, and in that time have become well acquainted with it?—Fairly well acquainted.



39. You had no previous acquaintance at all?—No.

40. You have had sufficient, at any rate, for you to come to the opinion that the western route is the better from an engineering point of view?—Yes. That is what I mean to convey.

41. Your opinion is that both lines would cost about the same to the 93rd mile?—I think the cost of the two lines would be about the same to McCarroll's Gap—98 miles.

42. Do you consider that an estimate showing that the western route would cost £93,000 more than the other one is a reasonable one?—I think it quite unreasonable—incorrect.

43. That is taking into consideration the cost of that large bridge across the Otamatea and another across the Wairoa?—No, we are not as far north as the Wairoa. The Wairoa is about 128 or 129 miles; it is further north than the 98-mile point.

44. Is there any work going on on the deviation at the present?—We have a few men working there, I think.

45. *Hon. Mr. Buddo.*] What is the usual method of finding out whether a proposed railway is practicable?—Making a trial survey of the proposed route.

46. In making a trial survey would you make any comparison of the country adjacent to the area in a similar direction, in order to find out the best route?—You would examine the country in the neighbourhood.

47. Would you take any elevations?—You would take complete levels on a trial survey.

48. That is to say, after making a trial survey you would be able approximately to——?—To lay down the line of the permanent survey very closely.

49. And give the grades?—Yes.

50. Have you made such a comparison on these two routes?—Such a comparison has been made.

51. From the comparison you have made, what, in your opinion, is the best route?—I consider the western route is the better route.

52. From a commercial point of view which route would you decide on for that railway? Let me put it in this way: If you were acting in the capacity of advisory engineer to a company or to any Government that was railing a district largely agricultural and pastoral, which of these two routes would you prefer?—I should certainly put the line on the western route.

53. You have been over both routes up to about a hundred miles, have you?—Yes, to 98 miles.

54. Is there a sufficient quantity of metal to be obtained at a reasonable price on this western route to keep the cost of the railway within reasonable bounds?—Yes; excellent ballast is obtainable at 105 miles—crystalline limestone, in large quantities.

55. Then there is no great difficulty in the way of ballast?—No. It could be railed from Mount Albert, as we are doing now; and it could be obtained elsewhere.

56. In past experience of railway-construction in New Zealand, you have met with difficulties here and there with regard to slipping country, have you not?—Yes.

57. Did you notice on either of these routes any country that is more likely to slip than any other place you have been constructing railways through?—There is slip ground on both lines. There is more slip ground, I consider, on the western route.

58. *Mr. Hogan.*] Taking the whole distance up to the 135-mile point—the converging-point of the two routes, I think—would the western be cheaper than the eastern?—I should not be prepared to say that. It is not in my district. I have not gone into it.

59. *The Chairman.*] From the point where the railway is brought up to now, it could deviate either east or west?—Yes.

60. Is it rougher country, with more rivers and gullies, on the west than on the east?—In that respect it is easier.

61. Is ballast not easier got at on the east than it is on the west?—I think ballast is rather easier obtained on the east.

62. And it would be cheaper there?—Yes.

63. How many miles is it from the point the railway is at now—the deviation-point—to McCarroll's Gap?—Twenty miles.

64. Have you any idea what it will cost per mile on the western side? Did you reckon it up?—I divided the line into sections. I could not give them from memory.

65. You could not give an average right through?—I would rather put it in writing.

66. How many feet long is that bridge that you mentioned—the bridge that would cost £17,000 without the approaches?—Eight hundred feet would be sufficient.

67. How many feet would the approaches be?—Between 400 ft. and 500 ft.

68. *Mr. Stallworthy.*] You have been pretty well over the country in question?—Yes.

69. I made a trip with you at one time, when we went right through the centre?—Yes.

70. So you have a very good knowledge of the country?—Yes.

71. Prior to your going to the North, had there been any survey of the western route—I mean, sufficient to form an opinion as to cost and so on?—There had been a flying survey as far as Young's Point.

72. Not beyond that?—No, none further.

73. So that until you went to the district there was no man in a position to form an opinion as to the relative value of the eastern and western routes?—No reliable opinion could have been formed.

74. We have in you, therefore, the man who has had as much, if not more of the information regarding the two routes before him than any other man?—I have had the whole of the information that has gone to the Engineer-in-Chief.

75. You have had better opportunity of judging than the Engineer-in-Chief himself, for this reason, that you have seen the country on the western route more than he has?—I would not say I have had a better opportunity of judging.

76. In constructing a line in that Maungaturoto district, do you not think it a very wise thing to touch the deep waters of the Kaipara?—I think it is an advantage from a trade point of view.

77. Are there many miles of water-line that would be brought into communication with the railway by so touching the water? There are the whole of the arms of the Otamatea and down to the Kaipara—about twenty miles, is it not?—In a direct line, following the main Sound.

78. Then, following the water-line through the different bays, there would be very many miles indeed?—Very many more. I could not form an estimate, but there are very many miles.

79. There are many settlers on the waters of the Kaipara who would be brought within access of the railway if the deep water is touched at Young's Point?—Yes, there must be many settlers there who would reap an advantage from it.

80. From the time you leave Helensville you do not touch deep water until you reach Young's Point: is that so?—That is so. You do not touch deep water. You touch tidal water, but not deep water.

81. *Mr. Mander.*] You, I suppose, have read the Public Works Statement of 1907, where it speaks of this line?—Yes.

82. Do you think that the engineers and the Minister of Public Works on that occasion, in deciding in favour of the eastern route after all the evidence that had been taken—do you think they made a mistake?—I think they had not sufficient data before them.

83. Then, when Mr. Holmes says he went into the matter carefully and made all sorts of inquiries, you think that is not correct?—There was no survey of the western route at that time.

84. Is there sufficient data at the present time to come to anything like a definite conclusion with regard to the cost of the railway-line as far as McCarroll's Gap?—Sufficient survey-work has been done to enable a close approximate estimate to be arrived at.

85. Can you possibly form any estimate of the cost of that work through the bad country at Bickerstaffe?—Yes. Up to Wellsford the railway-line has been carried through slip country. We know what that has cost.

86. Do you not consider it would be a great advantage to have the line close to Pukekaroro for the purpose of getting ballast?—I think there is an advantage in being near Pukekaroro as far as ballast is concerned.

87. How many miles of railway will it take to get to the Pukekaroro ballast-pit from the western route?—About four miles, I expect.

88. The cost of that would have to be added to the cost of the western route?—If they went to Pukekaroro from the western route it would have to be added—not otherwise.

89. What is the difference between the mileage to McCarroll's Gap on the western route and on the eastern?—The mileage will be found to be about half a mile in favour of the western route.

90. The map we have here shows it the other way about?—I think you will find it is half a mile shorter.

91. Look at this map that we have here. It is shown as I say?—[Witness looks at map.] You must take the red figures here. They show the distances just about the same here [point indicated on map.]

*The Chairman:* Is that an official map—a correct map?

*Hon. Mr. R. McKenzie:* It is as far as we have got, but it is always liable to alteration, because various short-cuts and alterations in the line are made here and there, which may either lengthen or shorten it.

92. *Mr. Mander.*] Seeing that the eastern route has been laid out and authorised and fixed by Proclamation, and all the rest of it, do you think there are sufficient reasons for making this great change now, seeing that the cost of the two lines would be about the same and the length about the same, and you are going away from Pukekaroro ballast-pit, where you can get ballast much more cheaply than you can get it anywhere else?—I prefer not to answer that question.

93. What do you think the approaches to this bridge across the Otamatea would cost? Would they not cost nearly as much as the bridge-construction itself?—No, they would not cost anything approaching the cost of the bridge. They would cost very much less.

94. Would they not have to be built of rock?—They would have to be protected with rock.

95. Would it not be unwise to obstruct the current of the river by putting in fillings at all? Do you not think it would be better and cheaper to bridge it all the way?—I do not think it would be cheaper to bridge it all the way. It would not be cheaper, and it does not appear to be necessary, because a bridge of 800 ft. will not obstruct the tidal flow and will leave sufficient opening for any flood-water to get away.

96. You heard Mr. Stallworthy talk about the great advantage of touching the tidal water on the western side. Do you not think it would be an equal advantage to touch the water on the eastern side?—Yes, it would be very good to do so, if there were any water within convenient reach of the railway.

97. Does the railway touch the water on the eastern side at any point?—No.

98. How far is it away at the nearest point?—About ten miles.

99. And it crosses the tidal waters at Te Hana, Mainini, and Topuni, does it not?—Yes.

100. Do you know the point on the Whakapirau where one branch runs up to Wellsford and the other to Te Hana?—Yes.

101. You are aware that vessels can go there at any state of the tide?—I thought they probably could.

102. How far would that be from the Te Hana Station, approximately?—I could not tell you what the distance is.

103. Do you not think that would be the nearest point for all the people on the Wairoa River to catch the railway? Would it not be shorter for the people to go there than to go up the Otamatea?—Yes, less mileage.

104. Would it not be less railage for the people going to Auckland?—Yes.

105. About fourteen miles less?—Yes.

106. Do you not think that that would be the most sensible place for the people on the Wairoa to catch the train for Auckland? Do you not think it the most sensible place to meet the line, seeing that they would save twelve or fourteen miles of railage?—The line is past that point now. It is out of the question.

107. *Hon. Mr. R. McKenzie.*] Could you form any opinion of the route of the North Auckland Railway by looking at this map of Mr. Mander's?—It is merely a sketch-plan of the line.

108. Could you locate the railway anywhere on it when it gets away from the water at Young's Point?—You could not locate it if you carried the map on to the ground.

109. Nor anywhere else, could you?—It would be difficult to do so.

110. It has been suggested that the railway is to follow the route shown on this map. Would that be a gross exaggeration as to where the line goes?—It is incorrect. It is merely a sketch.

111. Is this McCarroll's Gap, as shown here?—It is intended for it. I could not say whether it is in the right position or not.

112. Could you state whether on this map it is ten miles away from the actual position?—I do not think the plan is to scale, so that one could not judge closely.

113. Anyhow, are you satisfied that that map distorts the position of the line?—It does not truly show where the line goes at all.

114. As District Engineer at Auckland, it is your business to supervise the surveying and construction of this line?—Yes.

115. Is that your principal business as District Engineer?—The survey and construction of the North Auckland line is the most important work in the Auckland branch.

116. Consequently it is your duty to be familiar with every detail of what is going on in connection with this work?—Yes.

117. You control all the other engineers who are engaged on it?—Yes.

118. You know the line that runs from the point of deviation round by Pukekaroro to Brynderwin on the eastern route?—Yes.

119. You know the ballast-quarry that was prospected at the Bald Hill?—Yes.

120. You say there is equally good ballast to be got at 105 miles on the western route?—Yes.

121. What length of branch line would be required to get to the ballast-pit at 105 miles?—About a mile.

122. As against what length at Pukekaroro?—From the western route, no less than four miles.

123. And the ballast is equally good in both cases?—Yes.

124. Supposing that you have to construct that line for the Government, which ballast-pit would you adopt for the western route?—I should ballast as far as possible from the ballast-pit at 105 miles.

125. How far would you ballast south from there, assuming that that ballast would be twenty miles north of Young's Point?—By arranging the work you could ballast twenty miles south of it.

126. That would bring you within a few miles of where you would branch off to Pukekaroro, ballast-pit?—Yes.

127. As to the relative cost, you know the length of Ross's Hill tunnel on the eastern route?—Yes.

128. Take the tunnels between there and Maungaturoto. Supposing you put a tunnel through here, at 86 miles on the eastern route, how long would it be?—That would be 16 chains.

129. And the other one—at Ross's Hill?—Seventeen chains, and then there would be a short one of 11 chains at Kaiwaka Station.

130. That makes 44 chains of tunnelling?—Yes.

131. What is the length of the Ross's Hill tunnel on the western route?—Sixteen chains.

132. Are there any other tunnels until you get to Maungaturoto?—Yes, two going through Bickerstaffe.

133. What is the length of them?—One is about 5 chains and the other about 11.

134. That is, 32 chains of tunnelling on the western as against 44 on the eastern route?—Yes.

135. Coming to the bridge over the Otamatea, you estimate the cost at £16,000?—£17,000.

136. You have known me as a bridge-builder for many years?—Yes.

137. Do you think I could judge the cost of that bridge as well as, say, Mr. Holmes, or Mr. Stewart, or even yourself?—Yes, I think you could as well as myself.

138. Supposing that I offered to build that bridge for £12,000, do you think I should be able to do it—that is, with an ironbark superstructure and not a steel one?—It would be built very much cheaper with an ironbark superstructure. That estimate of mine is not for an ironbark superstructure.

139. Supposing it to be of ironbark and was to be put out to contract, do you think £12,000 would be too low for it?—I am not prepared to say you would be too low. You would probably be about right.

140. As to the approaches, say, on the western side, there would probably be 5 or 6 chains of approaches. The main bridge would necessarily be a cylinder bridge, but on the rubble perhaps 6 or 7 chains could be filled in to advantage, could it not?—Yes, about 400 ft. or 500 ft. could be filled in.

141. I think you said that this approach would cost much less per lineal foot than the bridge would?—Yes.

142. This bridge would be across salt water, would it not?—Yes.

143. Would you require to have either concrete piers or iron piles in that bridge, on account of the teredo?—It would be better to put cylinder piers or concrete piers in there on account of the teredo.

144. If you made an embankment there, that would be an everlasting job, would it not?—Yes.
145. It would last much longer than the bridge would?—Cylindrical piers filled with concrete would make a fairly permanent job.
146. Which do you think would be more permanent—they or an embankment faced with stone?—You could not have anything more permanent than the embankment. I dare say it would last out the piers.
147. As far as Young's Point, or 84 miles, do you think there is much difference in the cost of the two routes to that point, or is one cheaper than the other, the mileage being the same?—You mean to include the bridge?
148. I include the bridge?—That is hardly a fair comparison. You would require to cross over the bridge on to this side.
149. We propose to put a station at about 87 miles. Supposing you take 87 miles on either line—but before you answer that let me ask you this: You know the eastern railway route between Pukekaroro and Bald Hill?—Yes. You mean beyond Rock Creek?
150. Yes. What do you think of that piece of country for constructing a railway?—It is an expensive piece of formation.
151. Is there anything on the western route to equal it, do you think?—No; I think that is the most expensive piece of formation on either route, right up to the Gap.
152. At the end of that gorge, what is the nature of the country there? Would it be of a slippery nature, do you think?—I think it is fairly good standing country, but expensive to construct a line through.
153. I mean when you get through, from the saddle—before you go down into the valley on the other side?—I do not think there is slip ground up there.
154. Taking both lines, say, to Maungaturoto, how do they compare as to cost of construction?—I should expect that to Maungaturoto, perhaps, the balance would be in favour of the eastern route.
155. Taking them right through to McCarroll's Gap, which is 20½ miles, how would they compare?—By the time they reached McCarroll's the cost would be about the same. It would be no more on the western than on the eastern route.
156. Beyond McCarroll's Gap there is no definite information available in connection with these routes, is there?—Oh, yes! A trial survey has been made.
157. There was no definite information available in connection with the western route, say, until within the last six months?—No, there was no information until then.
158. From an engineering point of view, no one could say till then which was going to be the most expensive to construct or which was likely to be the most serviceable for the people of the country?—No.
159. You are familiar with this country?—I know it fairly well.
160. Which do you consider the more central from the point of deviation to the point of junction in the Mangakahia Valley? Which has the bigger area of settlement and also of land—to the eastward or to the westward?—I think the western route serves the population better and settlement better.
161. The contention is that the line ought to be made more central if possible. Do you think there is more country on the west side of it than on the eastern side?—I think it is fairly central.
162. Is it a good deal more central than the line shown in red on this map—the eastern route?—I think it is more central.
163. You have had a line from Whangarei to Kawakawa under your control?—Yes.
164. And you know the Mangakahia Valley?—I know about it, though I have not been there.
165. Do you know whether there is a high range of hills between the Whangarei-Kawakawa line and this line that would go up the Mangakahia Valley—I mean, down to about Maungatapere?—There is high country there which divides the Mangakahia from the country to the east.
166. The Whangarei line is on the eastern side of that range?—Yes.
167. Supposing this line were made, do you think it would ever command any traffic from the eastern side of that range, or would the traffic go to the Whangarei line?—From the eastern side, I should hardly think it would go over that range into the Mangakahia Valley.
168. Not until you got up to Kaikohe?—No, I should not expect it to do so.
169. So that this line is never likely to get any traffic from the eastern side of the range till it gets that far?—No, I should not think so.
170. Does this eastern route not follow the foot of the Waipu Range from Kaiwaka to McCarroll's Gap, a distance of twenty-two or twenty-three or twenty-four miles?—It gets close into the range at Pukekaroro at about 84 miles, and it keeps fairly close to the foot of the range from there to McCarroll's Gap, at 98 miles.
171. Is there much settlement before you go over the range?—Very little, I think.
172. Is there any settlement at all there?—There would be a few farms on the eastern side of it.
173. Would this eastern route draw traffic from between the top of that range and the railway-line if it were made along the foot of that range?—From between the top of the range and the railway-line there would be very little. There is just an odd settler here and there.
174. You know the country to the east of the range, at Waipu and along that district—along the east-coast side of the range?—I have been at Waipu and have been through the settlement.
175. Have you been from there towards Marsden Point?—No.
176. But you know the road-lines?—Yes.
177. Which would be the best way for the traffic on the eastern side to get an outlet, even if this line were made?—They would still have the outlet that they have at present, and they could come to the railway, if they wish to do so, at McCarroll's Gap. I refer to the Waipu people.

178. Do you think it would be profitable for the settlers on the eastern side of the range to send their traffic by this line as against sending it by sea?—No, I do not.

179. You think the people at Ruakura and Waipu would find it a cheaper outlet for their produce and their stock to ship it to Auckland rather than convey it by this railway, even if the eastern route were followed?—I think it would probably go by sea.

180. With regard to ballast, do you think it would be cheaper to get ballast at 105 miles than to have a branch line at Pukekaroro and get ballast from there, taking the cost of both ballast-tip lines into consideration?—I think it would be better to get the ballast from 105 miles. It would be a cheaper line to make, and probably a cheaper place to quarry at.

181. Do you know what the Department is paying for ballast at Mount Albert?—Five shillings a cubic yard, delivered at Wellsford. We take it over at Wellsford, and run it ourselves from there.

182. Suppose you had a branch line into Pukekaroro, and quarried the ballast, broke it, and then ran it down to the main line, how much a yard would that cost?—It would cost as much, I think; besides, there would be the cost of making the line.

183. You have to consider that, and also that you might have to pay royalty for your ballast. Do you think it would be any advantage to the Government to put a branch line into Pukekaroro at all?—I do not think it is advisable to get ballast at Pukekaroro for the western route.

184. How many years' experience have you had as a railway engineer in the public service of New Zealand?—Thirty-four.

185. You have been mainly connected with railway-construction at all periods?—I have done a great deal of it.

186. In all parts of New Zealand?—Yes.

187. Though you have been only two years and a half in Auckland, I suppose you know every detail in connection with both these routes and this work?—I consider I am closely familiar with it.

188. Do you think you are more familiar with it than any other man, inside of the public service, or outside of it?—Perhaps I am.

189. Do you know Mr. James Stewart, civil engineer, of Auckland?—Yes.

190. Did he have any details or data from the Public Works Department from which he could form any close estimate of this work on either route?—No, he had no details. He was not in a position to form an estimate.

191. Nor could any other engineer in New Zealand, without those details which are in the office of the Public Works Department, form even an approximate estimate?—No, unless he had the plans.

192. You are aware that, as far as Auckland is concerned, Mr. Stewart did not have access to those plans?—He had no access to the plans.

193. *Mr. Buchanan.*] Where this big bridge is proposed to be built on the western route—what is the rate of the current there? Being tidal water, is there not a heavy current?—It is not a swift current.

194. You would have no hesitation in putting an embankment instead of an open bridge?—You would be perfectly secure in doing so.

195. *The Chairman.*] Can you give us a lump-sum estimate of what you think that twenty miles of line to McCarroll's Gap would cost on the western route?—No, I am not prepared to give the Committee a lump-sum estimate—unless you give me time to do so.

196. Have you examined the eastern route?—Yes.

197. You could not give an estimate for that?—I am exactly in the same position with regard to the eastern route as the western. I have a very fair idea of what the routes would cost mile by mile, but before making a lump-sum estimate I should require time to go into the matter.

198. At any rate, you think the eastern route would cost as much as the western?—Yes.

199. *Hon. R. McKenzie.*] Did you make out the table of rises and falls that was submitted to the Engineer-in-Chief in connection with this matter?—I have not made out a table of rises and falls.

200. It was made out in your office, was it not?—No, we made out none in my office.

201. Do you know anything about the rises and falls on this route?—Yes, I have an idea of what they are.

202. On which line are the rises and falls more favourable?—On the western route.

203. Would the difference in rises and falls make a very material difference in the cost of working the line, or drawing loads over it?—It would make some difference in the traction.

204. And also in the cost of working the line?—Quite so.

205. The difference in rises and falls is materially in favour of the western route in your opinion, is it not?—It is materially in favour of the western route.

206. As to curves, are the curves adopted on each route the same?—They are about the same.

207. There are no worse curves on the western route than on the eastern?—No.

208. Do you know which line has the more level running of more easy grades?—The easier running is on the western route.

209. Taking grades and levels, do you know if there is a material difference in that respect in favour of the western route?—There must be a material difference.

210. You think that in maximum rises and falls, and also in grades, the western route is better than the eastern?—Both are in favour of the western route.

211. Something was said about station-yard sites having been fixed on the eastern route before this deviation was started. Did you ever receive authority to fix any station-sites on the eastern route—that is, beyond Ross's Hill?—Yes, I received authority to fix one at Kaiwaka; and an application for a station was considered up near Pukekaroro, but the site was not definitely fixed.

212. Pukekaroro, anyhow, was on a branch line, even if the eastern route were adopted—I mean, where the quarry is?—Yes, the quarry was on a branch line.

213. It required a branch line in any case?—Yes.

214. Of course you would get your authority to lay off the station-yard at Kaiwaka through the Engineer-in-Chief?—Yes.

215. You do not know whether it was authorised by the Government?—I got my authority, I believe, from the Engineer-in-Chief.

216. *Mr. Buchanan.*] Is the Committee to understand that if the western route is followed, a long quarry-line for metal will not be necessary at all?—Yes, in my opinion it is not necessary—I mean, the quarry-line from Pukekaroro.

217. That is to say, if the matter were left to your discretion you would ballast the line?—Without going to Pukekaroro.

218. *Mr. Mander.*] When you start to deviate at Kaiwaka, going past Pukekaroro, you go through very fair country as far as Pukekaroro—Ross's farm, and Clark's farm, and all those places?—It is country that you might expect some slips in, I think.

219. But from an agricultural point of view it is very fair country?—Oh, yes!

220. You get to Pukekaroro and you go through a gorge there: how far is it to Brynderwin?—About a mile and a half.

221. When you get into Brynderwin, do you not strike very good country there?—I suppose that is good farming country.

222. As good as any north of Auckland?—Yes.

223. And then you go through Maungaturoto—through very good country?—Yes.

224. And you leave Waipu, with its very bad harbour, about nine or ten miles to the eastward?—Yes.

225. And then—adopting the eastern route—when you get to Mareretu you come alongside the range there?—Yes.

226. What would be the nearest point you would get to Paparoa by the eastern route, as already authorised?—I suppose it would be about ten miles.

227. From Waipu?—To Paparoa, from the eastern route.

228. Are you aware that the Paparoa people intend to make a road up to what is known as Rogers's, at the Wairere, whichever way the line goes?—I have heard that.

229. Is it not a fact that it is only about two miles altogether from this line?—It is close on two miles and a half, according to the plan here.

230. How close to Paparoa would that bring the line?—About four miles.

231. And how far would it be from Waipu at the nearest point?—Nine miles.

232. Would not this point [indicated on map] catch the whole of the people at Pahi and from the other side who wished to reach it?—They could come that way.

233. Would not that be just as beneficial to everybody in that quarter [indicated], except the people at Bickerstaffe and Whakapirau?—I should think it would suit them to go to the station at Wairere.

234. In regard to the ranges, supposing you went straight on, you are aware of course that there is good country all along the bottom of that range?—Yes, but you are on the fringe of it.

235. Are you not aware that this rough country at the back, towards Waipu, is pretty well settled?—No, I did not know that it was settled.

236. In Waipu alone there are 837 people. Are you not aware that Waipu harbour is a very bad one, and that vessels are frequently stuck up?—It is not a good harbour.

237. Are you not aware that by the road to Marsden Point it is fourteen miles from Waipu, and that this is a very bad road, almost impassable for heavy traffic?—I do not know what the distance is to Marsden Point.

238. Are you not aware that all the people at Bickerstaffe and round about Whakapirau have good water communication?—Yes, they have water communication.

239. Do you not think that would be a good compromise to make [proposed route explained on map]?—There is the objection that it would add to the length of line by over two miles.

240. *Hon. Mr. R. McKenzie.*] You had a trial survey made of this line that Mr. Mander has pointed out?—Yes.

241. And it was condemned as being impracticable, was it not?—It is a fair route.

242. For construction, yes; but I mean from an engineering or public point of view?—It was condemned, I believe, because it added so much to the length of the line.

243. So there is nothing new in what Mr. Mander wants?—No.

244. *Mr. Stallworthy.*] Could not the Bickerstaffe people much more easily get to Young's Point than they could to Wairere? Is it not much better for the railway to touch at Young's Point? Is not that much better than the suggested deviation would be?—I am not so familiar with all the details of those Sounds as you are.

245. Would not the Pahi people have to pass through Paparoa to get to Wairere?—Yes.

246. They would be much nearer to Young's Point than to Wairere?—It would probably be easier for them to take launches and go to Young's Point.

*Mr. Pearce:* I should like to ask Mr. Holmes, as he is present, whether he had the authority of the Public Works Department to fix the station-sites that have been mentioned—sites on the eastern route?

*Mr. Holmes:* The usual departmental practice was followed in choosing the best site to serve the Kaiwaka district. There is really only one spot where you could put a station at Kaiwaka.

*Mr. Pearce:* Mr. Wilson said he was instructed to fix the site by you, as Chief Engineer. That was by instructions, was it?

*Mr. Holmes:* The station-site would be shown upon the plans that would be sent out from the Head Office, approved of, for the construction of the line.

*Mr. Pearce:* Approved of by the Public Works Department?

*Mr. Holmes:* Yes.

TUESDAY, 21ST DECEMBER, 1909.

CHARLES RANKIN VICKERMAN, Superintending Engineer, Public Works Office, examined. (No. 9.)

1. *The Chairman.*] Do you know the railway routes in question, known as the eastern route and the western route, for the trunk railway north of Auckland?—I know the earlier part. I may say I have not been up there for about three years.

2. Will you state all you know about the matter, or would you prefer to be asked questions?—I have no evidence to give. I am not interested in which route is adopted, and I am a Government servant, and do not feel at liberty to give anything more than you ask me for.

3. *Mr. Pearce.*] Have you any knowledge of the western route—the new route which has been fixed on?—I have not been over the western route as now fixed. When I was up there the western route went round the hill; now they are putting a tunnel through Ross Hill.

4. Have you any knowledge of that bridge that will have to be put over the waterway at Young's Point?—Yes.

5. Could you give a rough estimate of what it would cost to put a substantial bridge for the railway over that waterway?—It is going to cost from £20,000 to £25,000.

6. That would be for the bridge, without the approaches?—I do not think there will be any approaches much there. That, of course, is an uncertain quantity, because the design has not yet been made. It is only a guess.

7. It has been stated in evidence here that there is a piece of slipping country further on that will be very bad to maintain a railway in. Have you any knowledge of that?—I know about two miles of it.

8. What is your opinion with regard to that country?—It will slip.

9. The railway there will be very expensive to maintain?—I could not say what the future will be, but no doubt it will slip.

10. You know the eastern route?—Yes, as far as Pukekaroro.

11. Is Pukekaroro past the intended deviation?—Yes, it would be about eight miles from the deviation.

12. Do you know that route further than Pukekaroro?—I know it into Maungaturoto.

13. Are you prepared to express an opinion as to which route would be the more expensive to construct?—There has been no detailed survey of the western route yet. It was only a flying survey. The actual location of the line has not come to me. It may have been done in Auckland since I left.

14. It has been stated that they have already started construction on that western route: how can that be if they have no detailed survey?—For the first mile and a half the two lines run almost together.

15. Is it a right thing to start a deviation of that kind for some eighteen or twenty miles without having a detailed survey over the whole length?—It is not my business to settle that, sir.

16. *Mr. J. Duncan.*] Which is the more costly of the two lines to construct as far as you know them—for the same distance?—I have just replied that a detailed survey of the western route has not been completed and given to me.

17. You are not in a position to say?—I am not in a position to say definitely which is the more costly.

18. *Mr. Buxton.*] You do not know anything of the country that the eastern route passes through?—I know it as far as Maungaturoto.

19. Do you know anything at all as to the quality of the land on the western route?—I know about two miles of it on Bickerstaffe.

20. What would be your opinion of the quality of the land on either route—is it about the same?—It is quite different land.

21. You have mentioned that after leaving Young's Point there is a piece of very bad country on the western side?—I said it would slip; I did not say it was very bad.

22. Is there nothing of the kind on the eastern route?—Yes, on the eastern also there will be bad slips.

23. What is the distance between the eastern and western routes?—About three miles on the average.

24. *Mr. Buchanan.*] How far along the western route have you been?—I have been on the Bickerstaffe Estate.

25. You have been practically no distance along the western route at all?—I know the country, but I have not been on the railway route. You see, I have been away from Auckland for three years, and the western route has practically come into being since then.

26. You said that an estimate of the cost of the bridge across this waterway on the western route would be no better than a guess: would you not, as an engineer, be able to give a pretty near estimate, at so-much per foot, if you had a look at the place and knew the length to be bridged?—You would have to know what the bottom was like also.

27. Yes, I am presuming that?—You would need to have borings, and know the length and all that before you could come to any definite conclusion. And then you would have to know what sort of a bridge was wanted.

28. You have not got the details?—No. They have not been referred to me, at any rate. The Engineer-in-Chief may have some information, but I have nothing to do with it.

29. *Mr. Mander.*] You will remember in 1907 the line being fixed practically to Maungaturoto by the Public Works Statement?—Yes, I believe there was an outline given.

30. Were you at that time in favour of the authorisation of that line to Maungaturoto?—Well, I do not know much about the last three miles near Maungaturoto. There was never a proper survey made of either route when I was there. I only went up to Pukekaroro on the east and about two or three miles on Bickerstaffe on the west. For the remainder it was simply a casual walk-over and general report. There was no preliminary survey made at that time.



31. You understand that in—I think it was—1902 there was an authorisation fixing the line to Maungaturoto?—Yes.

32. That was, of course, on the advice of the engineers at that time?—Yes, I suppose so.

33. Were you in favour of that being done? Were you ever consulted about it?—That was fixed on Mr. Knorpp's survey, not on mine.

34. There was another authorisation in 1904, to Maungatapere boundary, I think?—That probably also was on Mr. Knorpp's survey. He was the only man who ever went over the whole route.

35. There has really been no detailed survey of either route beyond Maungaturoto?—The detailed survey had not reached Maungaturoto when I was there. We had got as far as Brynderwin, and came out at the Mountain Creek. That was the end of our detail.

36. You know the country all along there?—A little.

37. The country up as far as Pukekaroro, where the line goes through—what class of country is that, from an agricultural point of view?—It is good land.

38. And then when you pass Pukekaroro you go through a gorge to Brynderwin?—Yes.

39. What distance would that be, from Pukekaroro to Brynderwin?—It is no great distance.

40. About a mile and a half?—Something like that, I should think.

41. When you come into Brynderwin you come into really good country, do you not?—Brynderwin is good land.

42. Maungaturoto is all good country?—Yes.

43. It is good country right to the tunnel at the Staircase?—Yes.

44. And then you go along the side of a range a little further on, do you not?—I do not know anything about that.

45. You know that the country which the line passes through, except a short distance from Pukekaroro to Brynderwin, is good country?—Yes.

46. And there is considerable population to the eastward of that—down at Mangawai and Kaiwaka?—I never went into the question of population.

47. If you were surveying a line through that country for a company or any concern apart from the Government, which route do you think you would adopt, from your knowledge of the country?—I should like to have some more surveys. I have not seen the completed surveys of the two routes yet.

48. You cannot really give any idea as to the cost of either route?—I am not prepared to give any idea.

49. Mr. Stewart, of Auckland, gave some evidence before this Committee, and he was accused of guessing. Do you think the engineers have done much more than guess at it themselves so far?—They have preliminary surveys of a good deal of the route.

50. I mean beyond Young's Point?—They can do more than guess, of course.

51. Slightly more, but they—?—But they cannot give you the details of it.

52. Would you be surprised if Mr. Holmes stated that the western route as far as McCarroll's Gap would cost £10,000 more than the eastern route?—I should be quite prepared to back up anything Mr. Holmes said. I have great faith in Mr. Holmes.

53. In laying a trunk railway through the northern peninsula, do you not think it is a wise thing to keep as near the centre of the peninsula as possible and far away from waterways?—That is a matter of policy, is it not? I am hardly in a position to answer your question.

54. From a business point of view, do you not think it would be sensible to keep as near the centre as possible, and send out branches to the various lines?—Possibly.

55. *Mr. Stallworthy.* When you were in Auckland there had been no survey whatever of the western route?—A trial survey had been made to Bickerstaffe—about two or three miles on the Bickerstaffe Settlement.

56. Nothing beyond?—Well, there was a flying survey—a walk-over, as we call it.

57. You had no data, really, to compare the cost of the eastern and the western routes?—No. That was not available till after I left Auckland.

58. How far is it from the point of divergence to Bickerstaffe?—About eight miles.

59. And you have no knowledge of the country beyond that?—I went about two miles on the Bickerstaffe Estate—about two miles beyond Young's Point.

60. I think you stated just now that no other engineer or surveyor than Mr. Knorpp had been over the routes?—Mr. Knorpp made the original flying survey of the North Auckland route.

61. And you made no subsequent one?—We followed pretty much on his lines. We were instructed to do so.

62. How long ago was Mr. Knorpp's flying survey made?—It was in 1878 or 1879—perhaps a little later.

63. Up till the time that you left Auckland you had received no instructions—except as to this walk-over—to survey the western route, or to look into it?—Yes; I have already told you that we carried it on to Bickerstaffe.

64. That is only a very small proportion?—At that time the objective was Maungaturoto. We did not go beyond Maungaturoto till after I left there. Then the question of the further extension was dealt with.

65. How far is the eastern route from Maungaturoto Post-office?—About a mile and a quarter or a mile and a half.

66. How far would the western route be from the Maungaturoto Post-office?—Which western route? The western route has been changed from when I was there. It used to join the eastern route at the Golden Stairs, as they call it.

67. Then you do not know the western route of the present?—The western route of the present is a different line. The distance from Maungaturoto Post-office would be about four miles, I think.

68. *Hon. Mr. R. McKenzie.* As far as you recollect, Mr. Knorpp's survey of this route was made in 1878 or 1879?—In 1879 or 1880, I think.

69. What sort of a survey was it?—A flying survey. He cut a line and chained it up, and took the bearings and barometer levels. Wherever it was in stiff country he might use an engineer's level.

70. At that time would the objective be Whangarei?—He joined Whangarei, and he went up the centre as well.

71. Do you imagine that his instructions were to lay off a line that would connect with the railway between Whangarei and Kawakawa?—I do not think those were his instructions. I think he had instructions to see whether a line could be put up the country, and he reported on both.

72. You know where Maungatapere Mountain is?—Yes.

73. Did not his survey go close to the side of Maungatapere—I always understood that he went up the Mangakahia.

74. Yes, but his survey went close to the Maungatapere boundary?—Maungatapere is too near Whangarei, is it not?

[Route discussed on map.]

*Witness:* Of course, I never got up anywhere near that, so that I really do not know much about it.

75. Did you know that the railway was authorised from Maungaturoto to the southern part of Maungatapere Parish?—Yes, I heard so.

76. And that authorisation was done by Parliament on Mr. Knorpp's survey?—Yes, probably.

77. Look at the red line on the map: that has been laid off quite recently?—Yes.

78. It does not go within five miles of where the line was originally authorised?—It is not advisable to depart from the red line.

79. From an engineering point of view, probably not; but if the intention originally was, on Mr. Knorpp's survey, to connect the North Auckland Railway with the Whangarei Railway, then it would be advisable to go there, would it not?—Mr. Knorpp broke off at somewhere about Maungakamea, and came off to Whangarei by Waikiekie. Then he also took the line up the Mangakahia Valley, and came out at Lake Omapere.

80. If the eastern route were adopted, the line would not go within five miles, straight across country, of where it was authorised by Parliament to go?—That is so.

81. Regarding the bridge over the Otamatea, supposing you were going to build a cylinder bridge, and you used 6-ft.-diameter cylinders, and assuming that a cylinder stands 35 ft. from the surface of the ground on the water-level, and that you sank 20 ft. in the ground, and made 80 ft. spans, and that the length of the bridge was 800 ft., how much would that bridge cost—£20 a foot, or £18?—Twenty-five pounds. But are you prepared to put in 800 ft. there?

82. That is the distance shown on the plans. The assumption is that the length of the bridge will be 800 ft.?—That is not my assumption. A longer bridge than that is wanted.

83. You were never over the country between Pukekaroro and Brynderwin, were you?—Yes.

84. When were you over the route there?—When I was up there—at the time it was first looked at.

85. What do you think of the country going along that gorge, from a railway-construction point of view?—Through the Mountain Creek?

86. Yes?—That will not be so bad, I think.

87. And before you get to Pukekaroro?—You are in worse country there.

88. Have you ever been along the western route to Bickerstaffe, as far as Maungaturoto?—I have been all along Bickerstaffe, as far as the Wakapirau Road.

89. Not to Maungaturoto?—Not on the route that you are on now.

90. As a matter of fact, the route is altered almost every day: we are prospecting now for the best route?—Yes.

91. When the railway was authorised, no engineer had been over the western route—I mean, taking the scheme as a whole, say from Ross's Hill to Mangakahia Valley?—It is about six or seven years since we were told to look at the western route.

92. No Government engineer ever made a trial survey of the whole route, and reported?—No, I think not. Nobody was ever over the western route.

93. You were never there yourself?—No. Nobody made a flying survey after Mr. Knorpp, that I know of.

94. Supposing that you wanted to make a report to the Minister or the Government as to which was the better route, could you make a fair and impartial report without seeing the country to be gone through?—I could from plans—a report that would suit myself. I do not know that it would suit you.

95. But you have already stated that there were no plans?—That is so.

96. Would it not, then, be a mere guess?—If there were no plans it would be a guess.

97. Up to last April or May there were no plans of the western route?—No.

98. Would it be possible for any one to say which would be the more expensive route or the more useful for the country, without those plans and surveys?—No, certainly not; you could not do such a thing without information.

99. You do not know the country as far as McCarroll's Gap, do you?—I have been along there.

*Mr. Buxton:* I understand that some deviation-work was done before any details were available?

*Hon. Mr. R. McKenzie:* That is not so.

*Mr. Buxton:* I understood from the engineer that there were no working details of either route beyond Maungaturoto?

*Hon. Mr. R. McKenzie:* The position is this: Last session this same Committee inquired into the petitions regarding this matter, and the Committee recommended the Government to have a survey of the western route made as far as McCarroll's Gap before this eastern route—or any

route—was finally decided on. Before I joined the Ministry, Mr. McNab, who was Minister of Lands, went through that country, and he was satisfied that the survey ought to be made, and he recommended the Government to have it made. Then, last February I was asked by the Government to go up there and look into the matter, and of course I ordered the survey to be made; and that survey is the only information we have to-day. But there was no work of any kind started. We had to discharge men until the question of the survey was settled.

*Mr. Buxton:* You stated, Mr. Vickerman, that you had very great confidence in Mr. Holmes. Seeing that the Committee were told by Mr. Holmes that the western route would cost £50,000 more, how would you get over that?

*The Chairman:* He said it might be £10,000 more.

*Mr. Buxton:* Plus the railway to Pukekaroro.

*Hon. Mr. R. McKenzie:* Let me say, in the first place, that we are not going to make the ballast-line to Pukekaroro at all. In the second place, Mr. Holmes told the Committee that when he recommended the eastern route he had never seen the western route at all. He went over it with me last February. Prior to that he had never seen the western route. In fact, the whole idea the Government were previously working on was to make the railway connect with the Whangarei line. Now it is considered advisable to go right through the middle of the peninsula.

*The Chairman:* Has a detailed survey been made from Topuni up as far as McCarroll's Gap, on the western route?

*Hon. Mr. R. McKenzie:* It is nearly finished. I think it was finished for one route, but the engineers found it necessary to explore the country, and quite recently they proposed a deviation that will lengthen the line by 42 chains. Whether I approve of that deviation or not I cannot tell you till I have had a look at it. There was no detailed survey of any part beyond Young's Point until last March.

*The Chairman:* So far, your Department or yourself could not give an approximate estimate of the cost of that twenty miles of railway on the western route?

*Hon. Mr. R. McKenzie:* Of course the engineers can take the quantities off the plans, as far as they have got the necessary details. Beyond that it is purely a piece of guesswork, but it may be approximately correct.

*Mr. Pearce:* Mr. Wilson said there were men working on the western deviation?

*Hon. Mr. R. McKenzie:* Yes, there are 250 now.

*Mr. Pearce:* The question I put to Mr. Vickerman just now was whether he, as an engineer, considered it the right thing to start work on a deviation of which you had not got a detailed plan, and he refused to reply. I think that is a question that an engineer ought to answer.

*Witness:* I told you that I was instructed to do so. I would suggest that you ask the Minister the question.

*Hon. Mr. R. McKenzie:* I can answer the question. Of course no railway will be started without having the details. We got the line located, and we are working on it as far as Kaiwaka. We have a 16- or 17-chain tunnel in hand. We have the plans and every detail in connection with it for about two miles. We know what that will cost, almost to a few pounds.

*The Chairman:* What you mean is that you have got a rough survey, but you have not got the working-details?

*Hon. Mr. R. McKenzie:* We have the details, and we have issued a Proclamation locating the line. We have to lodge a registered plan when the line is located, and we have every detail as far as Young's Point.

*Mr. Pearce:* But supposing that beyond Young's Point you struck a very bad piece of country that would make it preferable to go by the other route, would you find that out before you started.

*Hon. Mr. R. McKenzie:* Of course we know all about that. We have twenty miles that we know about. We are at 77 miles, and McCarroll's Gap is 98 miles. We know all about that twenty-one miles. The law does not allow us to spend any money on any railway until we have the details. The only latitude we are allowed is to deviate 10 chains on either side.

*Mr. Pearce:* But did you not state that you had not decided the route even now?

*Hon. Mr. R. McKenzie:* I meant north of McCarroll's Gap.

100. *Mr. J. Duncan (to witness).]* Do you know what Mr. Knorpp's instructions were with reference to laying off the North Auckland line? Were they just to find out the best central route?—His general instruction was to take the line up the centre. It was to be a central line.

101. And the result was his laying off the eastern route?—He only made a trial survey. He just went through there, and reported what could be done.

102. The purpose, at any rate, was to find a central route, and he recommended the eastern line?—He only went over the one.

103. But those were his instructions?—I understand so. He was sent out as a flying party to prospect the north and see what he could do.

104. For the best central route?—I would not say the best central—the best route.

105. And his recommendation was the eastern route?—No, he varied a good deal from the eastern route. Maungatapere is six miles away from the present eastern route.

106. The red line on that map is not the line that he recommended?—No; it is the line that has since been laid out with more precision than he exercised.

107. Then the red line is the result of subsequent work, by Mr. Holmes and others?—Yes.

108. *Mr. Buchanan.]* I understood the Minister to say just now that when Mr. Knorpp laid off the line, the object was to connect with the Whangarei line. If you were sent on a similar mission and that was the understanding, would you consider the western route at all?—I do not think Mr. McKenzie meant that exactly. Mr. Knorpp's instructions were to go right up the country. He went right up to Lake Omapere, which is away north. He branched off at this place [indicated on map] to Whangarei, because the Whangarei line was then being made. It was just to see what connection he could get with Whangarei.

109. In other words, you do not consider Mr. Knorpp's survey had any particular relationship to connecting with Whangarei?—He looked into it to see if it were possible, but he did not decide anything. He was just getting information.

110. *Hon. Mr. R. McKenzie.*] Was Mr. Knorpp's survey purely an exploration survey?—Yes.

111. Supposing you were making that survey, would you take all the elevations by barometer?—Yes, by check barometers.

112. You know the country about Maungakaramea and Maungatapere?—Yes.

113. That country would be all covered with bush when Mr. Knorpp was there?—There was a good deal of bush there.

114. His line north of McCarroll's Gap is practically all through bush?—Yes, it would be all bush in his time.

115. There is no reference at all made to any part of the western route in Mr. Knorpp's reports, is there?—No, he never went over the western route.

116. How long ago is it since the railway from Whangarei to Kawakawa was decided on?—In 1878 I was sent up there to survey a line.

117. That was in the same year as Mr. Knorpp's survey?—Mr. Knorpp's was somewhere about that time.

118. That was the policy of the Government of those days, was it—to make a railway from Whangarei to Kawakawa?—The Whangarei line was to run from Kamo to Whangarei. I ran a trial line from Whangarei to Kawakawa.

119. Mr. Knorpp was practically a young man then, was he not—and not in a high position?—Well, he was Inspecting Engineer.

120. Supposing you were to give one of your engineers instructions to go and explore a piece of country in order to make a railway—say, between Helensville and Hokianga River: he would have a free hand to examine the country, so long as he had a general idea as to where it was wanted to go?—He would have general instructions, and would be left free then.

121. He would simply make a trial survey, and report?—Yes, that is the usual thing.

122. And that is all that Mr. Knorpp did?—Yes.

123. *Mr. Mander.*] Mr. Knorpp went to the southern boundary of Maungatapere Parish?—Mr. McKenzie said so.

124. You did not adhere strictly to Mr. Knorpp's survey?—There were no instructions to adhere to it.

125. You simply selected what you considered the best line through the centre of the peninsula?—That is so.

126. *Mr. Stallworthy.*] The line was to go to Maungatapere, and you say that Mr. Knorpp was looking for a central situation. Would you consider Maungatapere the centre of the peninsula?—Pretty near it.

127. How far is Maungatapere from the east coast—you can give us an idea from the map?—Well, measuring on this map, from one coast it is 6 in. and from the other 7 in.

128. *Hon. Mr. R. McKenzie.*] I have here the schedule to the Railways Authorisation Act of 1904, in which a length of the North Auckland line was authorised. Will you read the schedule, please?—"From Maungaturoto to the southern boundary of Maungatapere Parish. Length, about twenty miles."

129. That was on Mr. Knorpp's survey—was it?—That would be the only guide they would have.

130. That authorisation was passed on Mr. Knorpp's survey?—Yes.

131. When that was passed there was no survey made of the eastern route beyond Kaiwaka?—No.

132. Can you tell the Committee when the survey was made—say, from Kaiwaka to Maungaturoto?—The trial survey would be made about 1905.

133. About a year after the authorisation?—That came on just about the time we were working about there.

134. When was the location survey?—It was not made till the end of 1907—that is, up as far as Pukekaroro.

135. When was the trial survey made from McCarroll's Gap northwards, on Mr. Holmes's route?—Last year.

136. Do you know whether Mr. Holmes had Ministerial authority for making that survey at all? Is there anything on the file authorising him?—Mr Hall-Jones told him to do so.

137. Is there anything on record about it?—I really could not say. I know he had orders to make the survey.

138. Where did you see them?—They were verbal orders. I cannot say whether he had written instructions or not, but I know it was one of the things that had to be done in a hurry.

139. Is it a fact that this survey was only started after the Committee reported last year recommending that a survey of the western route be made?—I do not think so. I think it was done before.

140. When was it done?—They were well on with this eastern-route survey before you started the western route.

141. When? Can you give us any date?—The same young fellow that was making the trial survey past Maungaturoto located the line up to Pukekaroro Mountain.

142. I do not mean there; I mean, north of McCarroll's Gap?—Yes. Then he got out of a job and was put on at carrying on the trial survey.

143. When?—From about the end of 1907. He was on continuously at that.

144. How far was he last February, say?—A little bit beyond McCarroll's Gap.

145. He was not beyond Maungakaramea Mountain last February?—You are quite mistaken, sir, if you think the engineers pushed on the survey of the eastern route to defeat the western.

146. I did not say so. Anyhow, when the engineers recommended the Government to pass this authorisation of 1904, the engineers were working on Mr. Knorpp's survey, because there was no other survey in existence?—That would be the guide they would take.

147. There was none other?—No.

148. And there was none other until eight months ago?—1908.

*Mr. Colvin:* I should like to ask Mr. McKenzie if the Department intend to have a survey made of these lines.

*Hon. Mr. R. McKenzie:* We have a trial survey of both lines now, and we have a location survey, too, as far as McCarroll's Gap, but we may alter it a little here and there.

*Mr. Forbes:* Would Mr. McKenzie tell us what has brought about the western deviation, after the Department had gone on practically past Kaiwaka?

*Hon. Mr. R. McKenzie:* As I have stated, the M to Z Petitions Committee last year recommended the Government, before going on with the line, to have a survey made of the western route. Then, shortly after I joined the Government last January, Cabinet got me to go up and examine both routes. I spent a month on the job, and when I saw the country I came to the conclusion that it would be a mistake to adopt the eastern route before the western route was examined, and I ordered a trial survey of the western route, as shown on that map. The trial survey was made, and the report of the engineers satisfied the Government that the western route ought to be adopted.

*Mr. Pearce:* Who made that report?

*Hon. Mr. R. McKenzie:* I made a final report to my colleagues.

*Mr. Pearce:* It was not an engineer's report, then?

*Hon. Mr. R. McKenzie:* The engineers were committed to the eastern route at this time, and did not like to have their ideas upset. However, the report showed that there were 41 more chains of tunnelling on the eastern route and 730 ft. more bridging.

*Mr. Mander:* Mr. Holmes contradicted that about the bridging.

*Hon. Mr. R. McKenzie:* No, it is in his own report. I include viaducts under the heading of bridging. There was a large viaduct right opposite Kaiwaka Township. Then there was a table attached to the engineers' report showing the rises and falls and the grades, and this table of rises and falls showed that for working afterwards the western route was much easier than the eastern. The engineers had no data to show which line would cost the more, because they had no surveys—in fact, the Engineer-in-Chief never saw the western route until he went over it with me. When I had finished going over the country I authorised the survey. The result was that all the Ministers were satisfied that the deviation was going to be the best in the interests of the country. Mr. Mander wants to make out that the red line on the map is not in the centre of the peninsula. Well, the peninsula is not very wide anywhere—in fact, as a private member I was opposed to the line at all, on account of the water being so close. The position is that from the point of deviation to the point of junction there are 618,000 acres on the western route as against 300,000 acres on the eastern. So that really the line would want to be shifted a good deal further west yet to get into the middle of the peninsula.

*Mr. Forbes:* What is the reference in the Public Works Statement of this year to a Royal Commission? Is it to take evidence about this line?

*Hon. Mr. R. McKenzie:* It is stated in the Statement that a Royal Commission will be set up in the recess to examine the line beyond McCarroll's Gap. Cabinet has already authorised the construction of the railway as far as McCarroll's Gap. Under the Railways Authorisation Act we can go as far as Maungaturoto. That is what we are working under now, and we have no intention of altering. But, as to the line beyond McCarroll's Gap, the reference that the Government will give the Royal Commission will probably be to ascertain whether it would not be advisable to connect this railway with the Whangarei Railway and save about fifty miles of construction by doing so. As I say, the Commission will also be asked to report as to which is the best route from McCarroll's Gap northwards.

*Mr. Stallworthy:* I should like to say a word or two, sir. It is this: This matter was before the Committee last year, when a petition signed by hundreds of people on the western side was considered, and the witnesses from the western side were all here and gave evidence, and the matter was fully gone into. On this occasion the inquiry was begun, and three witnesses were examined before I knew that it was being held at all. I did not hear the evidence of Mr. Stewart or the other witnesses, and was not informed that the meeting was being held at all; and I have not had a single witness here to give evidence on my side. All the evidence was heard last year, the witnesses going before the Minister of Public Works and the Premier. That is all I wish to say.

*Mr. Mander:* I would just like to say that Mr. Stallworthy has had a splendid witness in the Hon. the Minister on behalf of the west. I asked for quite a number of witnesses, but the only one I got was Mr. Vickerman, and I do not think he has said altogether what he thinks in regard to this matter. However, I want to refer you to this map. Mr. McKenzie has made a great deal of the matter of the population on the respective sides. As proposed by the Minister, the railway will cross through the Kirikopuni Valley here [indicated], and any one can see whether that is the centre of the peninsula or not. Maungatapere Parish is there [indicated], and any one can see that that is very nearly the centre; but the engineers are not keeping to that point. They are keeping in here [indicated], about 5 miles from that point; consequently the railway will be nearer the west coast than the east, and there is no land here [indicated] that would keep a rabbit to 10 acres. The good land is here [place indicated on map]. The calculation should really be made from the Wairoa River to the East Coast, and if the railway is taken where the engineers are laying it out, it will be taken as nearly through the centre of population as possible, and it will catch the people in the centre of population, where they are bound to patronise the railway.

*Approximate Cost of Paper.*—Preparation, not given; printing (1,400 copies), £21 10s. 6d.

By Authority: JOHN MACKAY, Government Printer, Wellington.—1909.