

boyhood, has been connected with construction of all kinds. He is an authority on all kinds of construction.

The figures which are found in this report he took from figures that were submitted by Mr. Fairweather and Mr. McLachlan to the select committee of the house on reconstruction and rehabilitation. Mr. MacMillan first starts with the estimated amount of fill for a causeway. He estimates that there will be 3,231,000 cubic yards of fill. The estimated cost of fill at \$2.25 per cubic yard would amount to \$7,270,000. The estimated cost of tunnel approach and trackage would be \$600,000, making a total cost of \$7,870,000 for the causeway. The estimated cost of a lock, 650 by 70 by 30 feet and a bascule bridge would be \$4,000,000. Thus the total cost of the causeway and the lock would be \$11,870,000, or, in round figures, \$12,000,000. Track revision; that is, the amendments of the curves and grades from Sydney to Point Tupper, partly by grade line revision and partly by new construction, is estimated at \$6,000,000. But if this track revision were to be made from Mulgrave to Truro, he estimates it at \$8,000,000 and the new line from Truro to Moncton, \$10,000,000. That would mean that the causeway, the amending of the grades and the alignment, in all would cost \$36,000,000. That is assuming that a causeway is built. For the track revision and strait of Canso crossing: the revision from Sydney to Point Tupper is \$6,000,000; from Mulgrave to Truro, \$8,000,000; from Truro to Moncton, \$10,000,000, and a bridge over the strait of Canso would amount to \$20,000,000, or a total of \$44,000,000. A revision of the line from Sydney to Truro with causeway would be only \$26,000,000, and if we add revision, Truro to Moncton, which would be \$10,000,000, would amount to \$36,000,000. He goes on to state the tonnage:

I am advised that the tonnage shipped from Cape Breton to points in Quebec in 1937 was 1,300,000 and in 1943 was 2,400,000, a difference of 1,100,000 tons.

He explains this by saying:

This difference is accounted for, in large measure, by water transportation of coal from Sydney to St. Lawrence ports, which did not occur in 1943.

He further states:

For the purpose of this study I am using a conservative figure of 1,500,000 tons. This is a reduction of 900,000 tons from the 1943 figures. The cost of freighting coal from Sydney to Montreal—

And that is something which has been discussed before in the house.

—as determined by the transportation commission by trial shipment is \$4.95 per ton.

[Mr. McGarry.]

Estimated saving per ton with proposed revision and proper crossing, 25 per cent, or \$1.23 per ton, which multiplied by the tonnage would amount to \$1,845,000. Plan 1A—

That is with not a bridge but the causeway.—costing \$36,000,000, with interest at three per cent would amount to \$1,080,000. Thus on that there would be a saving of \$765,000. \$765,000 would amortize the capital cost of \$36,000,000 in thirty years. Plan 2A, if we use the top figure cost of \$44,000,000, and tonnage 1,500,000 at \$1.23 per ton, the saving would be \$525,000 per year. That \$525,000 will amortize the capital cost of \$44,000,000 in forty-two years.

He states further:

If we are satisfied to use a causeway and revise the line from Sydney to Truro, leaving out the revision from Truro to Moncton, the cost would be \$26,000,000. Saving on 1,500,000 tons of freight at 70 cents per ton would be \$270,000. This would amortize the capital cost of \$26,000,000 in forty-six years.

In the attached brief summary I have endeavoured to show the annual saving in freight charges that may be effected by realigning and regrading the Canadian National Railway, and by the construction of a causeway or bridge across the strait of Canso. I should like to point out that the figures I have used in the statement are the figures given in the evidence by the Canadian National Railway experts before the special committee of the House of Commons on reconstruction and rehabilitation, namely, Mr. Fairweather and Mr. McLachlan.

It should be noted that I have used the maximum amounts set forth by them, which sets the cost of the completed work, Sydney to Moncton with bridge across the strait of Canso as \$44,000,000. You will find on page 400 of the committee's report, the following statement from Mr. Fairweather:

"So when you add the thing up you will see that in order to get this system—and it would be a magnificent system—you would have a total, taking my estimate along with Mr. McLachlan's, of about \$35,000,000, and it would be a programme of work which would probably extend over three years."

Mr. MacMillan says:

I have discussed these figures with a number of engineering experts and they all agree with me that the figures used by the Canadian National Railway experts are extravagant and away beyond what the actual cost will be. My personal opinion is that the figures used are from ten to fifteen million dollars above what the actual cost will be.

However, in order that there may be no chance of an argument I have used in this study the higher figures given in evidence by the experts of the Canadian National Railways, which may all be found in the report of the committee under date of May 24, 1943. In addition to the conclusions I have reached and set forth in my statement, there must be taken into consideration the freight tonnage from the mainland of Nova Scotia to central Canada on all products shipped to central Canada as well as coal from the Pictou and Cumberland county mines. In the statement I have used the outgoing tonnage only, and in no case have I used the large amount of tonnage from all over Canada to Cape