

1902.
NEW ZEALAND.

CANAL FROM WAIUKU TO THE WAIKATO RIVER

(REPORT SHOWING THE ESTIMATED COST OF CONSTRUCTING A).

Laid on the Table of the House by Leave.

SIR,—

Auckland, 27th June, 1902.

Herewith I send you plans, cross-sections, quantities, and rough estimate for constructing the above canal, as per instructions contained in your 3831 of the 19th May. I followed the line originally taken for the canal, but if one is really to be made it would perhaps be advisable to adopt a more direct route.

The ground from the Waikato to 4½-mile peg is practically all level swamp, and for a depth of 4 ft. or 5 ft. is peat and buried kahikatea roots and trees. From 4 m. 40 ch. to Waiuku is clay ground, but probably at no great depth a sandstone may be met with. Mr. Vickerman, District Engineer, reported to the Under-Secretary for Public Works in 1895 upon the deepening of the Waiuku Channel so as to give a depth of 7 ft. at neap tides at the Waiuku Wharf. He reports that a channel 2 ft. deep and 40 ft. wide will have to be made to the sandspit, about a mile in length, at a cost estimated at £1,760. As you will see, to obtain a depth of water at Waiuku the same as at the mouth of the Awaroa I shall have to excavate to a depth of 4 ft., and this will necessitate carrying the excavation as far as the Needles, about a mile and a half further than proposed by Mr. Vickerman.

I roughly estimate the cost of constructing the canal at a little over £100,000, made up as follows:—

Excavation in swamp, 25 ft. wide canal, as per section sheets, 260,705 cubic yards, at 1s.	13,035
Excavation through high land, taking shortest route, 1,090,403 cubic yards, at 1s. 6d.	81,780
Excavating from Waiuku Wharf to Needles, 40 ft. wide, 4 ft. deep, length about two miles and a half, 78,222 cubic yards, at 1s. 6d.	5,866
	<u>£100,681</u>

No allowance has been made for bridges crossing canal or for probable compensation.

The Chief Engineer, Department of Roads, Wellington.

A. B. WRIGHT,
Road Surveyor.

[Plans, &c., attached were not ordered to be printed.]

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