

works satisfying Mr. Carruthers's objections thereto, I think the Board would then be fully justified in proceeding with their construction; and if they desire that I should prepare the contract drawings and the specification, it will be necessary that particulars of the nature of the bottom along the line of the viaduct and pier should be obtained by borings or probings, and the results forwarded. It will not be practicable to decide upon the final details of the works until this information is at hand. I ought to mention that these particulars were not obtained by Mr. Eliot, because until he had returned and laid the information before me the nature and position of the works could not possibly be determined.

4. I have received your telegrams of 30th June. The first reads: "Please forward harbour specifications without delay." The second reads: "What will details and specifications cost? Reply." To which I answered on the 4th instant: "Contract drawings and specifications not exceed five hundred guineas." In the event of receiving a telegram from you authorizing the preparation of the drawings and specifications, I shall, nevertheless, feel it necessary to postpone any action thereon until all doubt as to the soundness or otherwise of the principles upon which the works are based have been set at rest by the adoption of the course herein suggested.

5. Should it be decided to proceed with the works, and if the Board are desirous of my being identified with their construction, it will be necessary for me to nominate a competent Resident Engineer. The salary of this officer would be from £800 to £1,000 per annum, and he would be required to enter into a formal agreement with the Harbour Board.

6. In the event of the works being proceeded with, I presume agreements with workmen, arrangements for plant, stores, &c., would be conducted through the office of the Agent-General for New Zealand.

Fulbert Archer, Esq., Chairman Timaru Harbour Board.

I have, &c.,

JNO. COODE.

P.S.—After this letter had been written, your telegram requesting that the contract drawings and specifications may be proceeded with has come in. As it is quite impossible to explain the case by telegram, I have no alternative but to wait further instructions after your receipt of this letter, which I shall do, as it would, in my opinion, not be proper either for the Board or myself to incur the responsibility attaching to procedure with the work until every reasonable precaution had been taken to remove the doubts which have been expressed.—JNO. COODE.—6th July, 1877.

### Sub-Enclosure to Enclosure in No. 8.

#### TIMARU HARBOUR.

PRINCIPAL rates upon which the estimates given in Sir John Coode's report of the 10th of August, 1875, were based: Rubble in mound, per ton, 4s. 2d.; concrete blocks in reef, per cubic yard, 30s.; concrete in mass over blocks, per cubic yard, 40s.; concrete in parapet of sea-wall, per cubic yard, 30s.; concrete blocks in foundation course of harbour wall, including preparation of bottom, per cubic yard, 45s.; concrete blocks in harbour wall between foundation course and low-water course, per cubic yard, 37s. 6d.; concrete blocks in harbour wall above low-water course, per cubic yard, 36s.; wrought iron in viaduct, exclusive of special price for fixing piles, per ton, £32; cast iron in viaduct, per ton, £26.

In addition to the above prices, an allowance of 15 per cent. was made to provide for contingencies, sea risk, engineering, and superintendence, and also an additional sum of £36,000 to cover cost of special and floating plant.

Having regard to the prospect of tenders being invited, the prices should be regarded as strictly private.

Westminster, 5th July, 1877.

JNO. COODE.

### No. 9.

#### REPORT OF THE ROYAL COMMISSION ON THE TIMARU HARBOUR WORKS.

To His Excellency the Most Noble the Marquis of NORMANBY, P.C., K.C.M.G., Governor of New Zealand.

MAY IT PLEASE YOUR EXCELLENCY,—

The primary function which we conceive ourselves to be called on to perform is, in terms of the 28th section of "The Timaru Harbour Board Act, 1876," to approve or otherwise of the plans and estimates of work previously adopted and determined on by the Harbour Board. We find, however, that the Board has not finally determined on any plan. We are unable, therefore, to exercise the approval which the Act requires to be given before any work can be commenced. Instead of any adopted scheme, the Board laid before us eleven plans which had been submitted to them in response to an advertisement calling for competitive designs. Of two of these they had expressed an approval by awarding to them first and second premiums; and a qualified acceptance, as a working plan, of that which received the first prize, was intimated to us, but with a request that we should examine the whole of the plans, and express an opinion as to the suitability of any of them or parts of them. This duty is far larger than that contemplated in the Timaru Harbour Act, but, since it appears to fall within the scope of your Excellency's commission, we devoted ourselves to the performance of it as well as the limited time at our disposal would admit.

The one formidable consideration on which the practicability of making any breakwater at Timaru depends, is the asserted travelling of the shingle along the coast. It has been maintained that the whole of the shingle beaches which extend from Oamaru to Banks Peninsula are subjected to a powerful and continuous scour, which perpetually urges their material to the north, the shingle so removed being constantly replaced by fresh supplies discharged from the great rivers, and by an erosion of some shingle-bearing cliffs to the south of Timaru; and that the quantity of shingle travelling is so vast that any work exposed to its action, which, by diminishing the motive force of the waves on