

RAILWAY BRIDGES.

Enclosure 2 in No. 15.

WAITAKI BRIDGE.

Schedule for 3rd line of Girders for 1, 33 feet span, 7ft. Sin. east of former line.

				Tons	cwt.	qrs.	lbs.
1 wrought iron plate girder	...	...	...	2	3	2	21
Horizontal bracing	...	...	...	0	1	3	0
Lateral bracing to the ends	...	...	...	0	0	0	20
2 connecting plates	...	...	...	0	1	0	7
1 cast iron bed plate	...	...	...	0	2	2	11
Bolts, viz.—2 bed plates to capsills	...	17 x 1½	= 19 lbs.				
4 girders to bed plates	...	5¼ x 7⁄8	= 7				
14 horizontal bracing to girders	...	2½ x 7⁄8	= 18				
2 bracing to each other	...	1½ x 7⁄8	= 2				
Lateral bracing to girders	...	2¾ x 7⁄8	= 2				
36 to coupling and bearing plates	...	2¾ x 7⁄8	= 49				
6 to girder ends	...	2½ x 7⁄8	= 7				
				104 lbs.	= 0	0	3 20
24 clip bolts to secure joists to girders	...				0	0	2 0
					2	10	2 23
110 spans at 2 tons 10 cwt. 3 qrs.	...			279	2	2	0
1 extra cast iron bed plate and holding-down bolts will be required with the last pair of girders.							

No. 16.

Mr. COOPER to Mr. MORRISON.

Colonial Secretary's Office,  
Wellington, 3rd April, 1871.

SIR,— I have the honor by direction of Mr. Gisborne to transmit to you the enclosed copy of a memorandum from the District Engineer in Canterbury,\* shewing the quantity and description of iron girders required in the construction of the Waitaki Bridge, and to request you to be good enough, in the event of the Hon. J. Vogel having left England to return to New Zealand, to take the necessary steps for the execution of the order in accordance with the instructions contained in a letter addressed to Mr. Vogel, a copy of which I enclose.

Before payment is due, Dr. Featherston, Agent-General, will have taken steps for providing the funds.

I have, &c.,  
G. S. COOPER,  
Under Secretary.

J. Morrison, Esq., 3 Adelaide Place,  
King William Street, London.

\* See No. 15,  
Enclosure 1.

Enclosure in No. 16.

Colonial Secretary's Office,  
Wellington, 3rd April, 1871.

SIR,— The Government have determined to proceed without delay in the construction of the Waitaki Bridge, as a wooden bridge, with iron girders, and I enclose a copy of a memorandum from the District Engineer in Canterbury, showing the quantity and description of the girders required; and I have to request you to be good enough to procure them, in accordance therewith, for the Government.

Similar girders have been provided to the Canterbury Government for the Waimakariri Bridge, under the inspection, and subject to the approval of Mr. G. W. Hemans, C.E., No. 1, Westminster Chambers, Victoria Street, S.W., and I am informed that they have proved to be suitable, and satisfactory in every respect. It would, therefore, be advisable that the iron girders which you procure should be also subject to the inspection and approval of that gentleman.

The girders should be procured as soon as possible, and sent, after inspection and approval, by the first opportunity, to the care of Mr. W. B. Bray, District Engineer, Christchurch, with a letter of advice, stating that they are for the Waitaki Bridge.

The Colonial Treasurer addresses you by this mail as to the provision of the necessary funds for meeting the cost of these girders, which is estimated at about eight thousand five hundred pounds, (£8,500), including freight, and Mr. Heman's commission. In the event of your absence, the Agent-General will receive instructions to provide these funds.

I have, &c.,  
W. GISBORNE,

The Hon. J. Vogel,  
Care of John Morrison, Esq.,  
3 Adelaide Place,  
King William Street,  
London, E.C.

P.S.—The makers of Canterbury girders are Kennard, Brothers.

W. G.