M.R.O. 1—77,066—3-6-37.

(1) Number of pages 2 [illegible]

(2) Date of repair [illegible]

(3) Initials of the Referencer

MADRAS RECORD OFFICE.

Government of Madras.

[illegible] DEPARTMENT.

G.O. No. [illegible] Press / Mis.

Dated [illegible] 18[illegible].

Not to be folded or roughly handled

C7

No. 363- Madras, 24th August 1871

Application from the Agent and Manager of the Madras Railway Company, requesting the sanction of Government to the following Estimate :—

North-west Line

Estimate of the cost of constructing a new bridge over the Cheyar River consisting of 46, sixty four feet openings with wrought iron girders, as per plan No 120. Rs 5,19,231.8.0

The Chief Engineer writing to the Agent and Manager says :—

"In designing this, advantage has been taken of the shallow depth of rock below the sandy bed of the river on the South side to introduce as many solid masonry piers on rock foundations as

"as possible. Accordingly the South
"abutment and № 1 to № 13 piers
"inclusive are thus designed -

"Beyond the 13 pier the
"depth of sand becomes too great
"to allow of this mode of construc-
"tion being carried out, and it is now
"designed for the remaining piers
"to be of cast iron Cylinders 6 feet
"internal diameter, filled with
"concrete, similar to those which
"Mr Hawkshaw sent out for the
"Kuddlehoondy bridge, where they
"were found peculiarly well adapted
"for sinking through a soft river
"bed free from boulders - The North
"abutment is designed to be of
"masonry built on brick wells
"of 12 feet external diameter, sunk
"to a depth of 40 feet below bed
"of river.

"I propose constructing
"the new bridge on a parallel
"line to the old one, and at a dis-
"tance from it upstream, of 60
"feet. By fixing its site upstream
"we shall avoid the liability to
"encounter portions of the wreck
"of the old structure when sinking
"the Cylinders of the new one, and
"a distance of 60 feet will clear
"the loose stone and timber by
"which the piers of the old
"bridge are surrounded beneath
"the sand."

GO June 30 1871 № 1743

The Government concur-
red in the opinion of the
Committee appointed for the
examination of foundations
of Railway bridges condemning
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the present bridge over the Cheyar as a permanent structure, and directed that plans and estimates for a new bridge should be submitted.

In the design now proposed there will be no island embankment in the middle of the river, but a continuous bridge of 46 spans seventy feet in length from centre to centre of piers, while the old bridge was built in two separate sections aggregating 38 similar spans.

With reference to the masonry wells for the north abutment, the Acting Chief Engineer writes that

they

they were designed "because they
"afford a more suitable basis
"on which to build the masonry
"of the abutment and its wing
"walls than the iron Cylinders
"would do. As the wells are
"to be sunk to a depth of 40
"feet it becomes necessary to
"adopt something different
"from the fragile cutcha well
"in ordinary use. I have
"accordingly estimated for these
"to be built pucka, and of a
"thickness of 3 feet. Wells of
"this sort have been very suc-
"cessfully employed in deep
"foundations on the East
"Indian Railway, and they are
"here built with an inner
"diameter of 6 feet. I have

therefore

therefore adopted this dimension.

But independently of other considerations the cost of cast iron Cylinder foundations for the abutment masonry would be very greatly in excess of that of brick wells.

The Cylinders will all be carried down to rock, the maximum depth from bed of river being 68½ feet and the minimum, 19 feet.

3. As the work will have to be commenced with promptitude in order to ensure the safe working of the line, I request that the sanction of the Government of India may be obtained for the outlay amounting to Rupees 5,19,231-8-0.

4. The Agent states that a Sum

Sum of Rs 83,500 out of the Indian share of expenditure namely Rs 2,38,820-9-0 will cover the expenditure during the current year and as the money available under the head of unforeseen requirements in the Budget estimate is not sufficient to meet this demand requests that a special allotment may be provided.

The Agent thus assumes that the whole cost of the new bridge will become a capital charge. The Government enquired in their Order of the 20th December 1870, No 3102, if there was any reason why the cost of the new girders required.

required for the temporary repair of the Cheyar bridge, should not fall wholly upon Revenue; and the Agent has referred to the Board of Directors the question of the incidence of the cost both of the repair and re construction of the Cheyar bridge, vide G.O. No 1964 dated 26 July 1871 -

5. While in my opinion, there can be no doubt, that the cost of the temporary measures adopted to render the old bridge serviceable, until the new one is built, should be charged to the Revenue Account; the re construction should under paragraph 11 of Sir C. Woods

Despatch

Despatch No 17 dated 7th March 1864 be treated as an exceptional case, and the cost be charged to Capital or to Revenue, or else be divided between them, as decided on consideration of the circumstances -

In the mean time, I would recommend that the necessary funds should be furnished on the Capital advance account, leaving the final debit to Capital to be adjusted hereafter - There is no Budget allotment for the work; but the sum of Rs 83,500 may, with the sanction of the Government, be provided by transfer

Transfer from the grant of
Rs 6,00,000 for the Railway
branch line.

Alex Lendey Major R.E.
Asst Cons Engineer for Railways

To

The Secretary to Government
Public Works Department
Lord St George

Rec 16th April 84 873-74 Aug
" 20 May 170 — 489-246
" 30 June 171 — 516-51
" 26 July — 448-449

C.W. 1871 Dept
Govt of Govt for Dept
1871.

No 4021

From

The Consulting Engineer
for Railways,

To

The Secretary to Govt
P.W. Dept

Dated 24th August 1871.
Received 28th

No. 363.
Plans-2
Estimate-3
Application from
the Agent & Manager of
the G.I.P. Railway requesting
the sanction of Govt to
the Estimate of the cost
of constructing a new
bridge over the Cheyaur
River.
Rs 2,66,000 - 2 lbs. 20 Annas

C/2312

Transf
Rs 6,0
branc

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CONSULTING ENGINEER'S OFFICE.

Railway Department.

No. 415

From Major H. L. Brandergast, R.E.,
Consulting Engineer for Railways,

To Colonel J. Carpendale, R.E.,
Secretary to Government,
Public Works Department,
Fort Saint George.

Sir,

In reply to your Memorandum No 219 of the 25th instant, I have the honour to inform you that the estimate for the new Cheyaire bridge, provides girders for 16 openings, inasmuch as it includes the cost of girders for 8 openings to replace those damaged by the floods, as well as for the 8 additional openings by which the new bridge is —

designed

designed to exceed the old one.

I have the honour to be

Sir,

your most obedient servant

Madras 24th Septr 1871

Lieut. Colonel
Major, R.E.,
A.C. Cons: Engr. for Railways.

Rec'd Sept 1871

Public Works Department

From

The Consulting Engineer
for Railways,

To

The Secretary to Government,
P. W. Department,
Fort St. George.

Dated 2nd September 1871.

Received 28th September 1871.

No. 1601

Public Works Department

No. 2600

Proceedings of the Madras Government

Under date the 20th October 1871

Read the following

From The Consulting Engineer for Railways. } H.E. No. 3630 of 24th August 1871
H.E. No. 4153 of 27th September 1871

I presume that the girders of the old bridge over the Cheyaur will be used in the new structure and that a portion of the cofferdams will also be used. If the old girders are to be used in the new bridge for a new work, the materials are to be used entirely from the old bridge. The extent to which it is proposed to use the old materials is not very clearly explained in the accompanying letter. I see that the girders are hundred = the new bridge is to have only 16 spans.

In accordance with para 6 of G.O. No. 1743 of the 30th June last the Consulting Engineer for Railways submits for sanction plans and estimates aggregating Rs. 19,232 for the construction of a Bridge across the Cheyaur river on the North West line of the Madras Railway to replace the structure which was partially destroyed by the floods of October last.

R. V.

The present design consists of a continuous Bridge of the old type having been built in two Sections with an Island in the centre.

The Govt Engineer brings to notice that Rs 83,500 will be required to meet the estimated expenditure in India on the Bridge in the current year and as there is no Budget allotment for the work Major Pendergast recommends that the amount be provided by transfer from the grant of Rs 6,00,000 for the Kalka Branch Line.

1916

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The estimate of Rs 5,19,232 will now be forwarded for the sanction of the Government of India and for the provision of the necessary funds, with an intimation that as soon as the views of the Board of Directors are laid before Govt the question of the incidence of the cost of the repair and reconstruction of the Bridge will be considered and finally disposed of.

The Govt Engineer for Railways
Despe 25/10/16

No. E. 2661 dated
No. 2661

The Secy: to the Govt of India, P.W.D.

Sir

I am directed by

His Excellency the Governor in Council to forward for the sanction of the Govt. of India the accompanying plans and estimates as per margin aggregating Rs 5,19,232 for the construction of a bridge of 46 sixty four feet openings with wrought-iron Girders across the Cheyaur River on the South West Line of the Isaadrao Railway to replace the structure the partial destruction of which was reported in my letter No. 2765 dated the 14th November last.

Two plans
One Abstract and detailed estimate
One statement of materials as can be utilized from the old Bridge.

2 The estimate includes the cost of girders for eight openings to replace those damaged, and for the eight additional openings by which the new bridge is designed to exceed the old one. Girders for the remaining spans will be obtained from the present bridge —

2 No there is no Budget allotment

allotment for this work it is proposed to transfer from the grant of the Veilgherry Branch Line a sum of Rs 83,500, which is the estimated expenditure in India during the current year.

3 It will be observed on reference to para 4 of the Col. Engineer's application that the question of the incidence of the cost of the repair and reconstruction of the Cheyaur Bridge has been referred by the Agent to the Board of Directors. On the receipt of the Board's views

views the matter will,
I am desired to say,
be again considered
by this Government.

Adee

14

Recd 25/10/71 with two
Illmo, two enclosures, one
Statement & slip Copies
of Govt 266 of 1871

c-bon. 1872 ¥ 4601-

Cost of [1871] Madras.

PUBLIC WORKS.

1. Secty-Consulting Engr for Railways and
2. Secretary to Govt of India

Nos. 1 to

Nos. 2

G.I. 2nd Sessn. No. 256-257.

Nos. 1 to 2 (1871) 3 to 5

Cheyaur Bridge (Coimbatore)

Papers on the above
letter & on the Consulting
Engineer's Estimates
and office proceedings in connection
with certain projects:

1871 — Proceedings Estimates
Plans &c on the construction
of a Bridge with masonry de-
scription & piers across the
Cheyaur on the North
West Line of the Madras Railway