M.R.O. 1—77,006—8-6-37.

(1) Number of pages_____

(2) Date of repair_____

(3) Initials of the Referencer_____

MADRAS RECORD OFFICE.

Government of Madras.

Public Works **DEPARTMENT.**

G.O. No. 3010 Press
394-395. Mis.

Dated 18- 12- 1872.

Not to be folded or roughly handled

Proceedings of the Madras Government, Public Works Department,
18th December 1872.

No. 394. Read the following letter from the Superintending Engineer, 7th Division, to the Chief Engineer and Secretary to Government, Public Works Department, dated Coimbatore, 15th November 1872, No. 193 :—

1 Estimate with Comparative Statement.
1 Plan.
1 Captain Morant's letter, No. 208 of 5th November 1872.

With reference to your memoranda, Nos. 146 and 187, dated 11th and 28th October 1872, I have the honour to re-submit the revised estimate with comparative statement and plan of the Waterloo Bridge, together with Captain Morant's letter, No. 208 of 5th November 1872, explaining the cause of the rise in the rates noticed by you; and, under the circumstances represented by the Range Officer, I request that Government will be pleased to sanction the estimate and allot funds for the same to the extent of Rupees 7,000 during the current year.

No. 395. Order thereon, 18th December 1872, No. 3,010.

CIVIL WORKS, No. 20.

Ordered that the consideration of these papers be deferred until next year, or such future date as funds may be more available than at present.

(True Extract.)

Colonel, R.E.,
Secretary to Government.

To the District Engineer, Neilgherries.

Exd. S. T. Austin.

3703
9/11/72

Executive Engineer's Office
Ostacamund 5th November

No 208

From,

Captain J. L. L. Morant R.E.
Executive Engineer
Nilgherry Range

To,

Lieut Col W. F. Farwell R.E.
Superintending Engineer
1st Division

Sir

In reply to your Docket No 101 of the 14th Instant with Memorandum from the Chief Engineer (herewith returned) I have the honor to furnish information regarding the increase of the rates to the Estimate for an Open Trussed Viaduct over the Wellington Waterloo Streams.

2. Brick in Chunam increase from Rs 40 to 45 per 100 Cubic Feet.

22nd Octr 1867 This has been caused entirely by the seigniorage charged by the Forest Department for Cutting firewood in the Shola having been raised from annas 4 which was the rate up to 1871 to Rs 1 per Cart load of about 750 lbs. In 1867 when the first Estimate was framed no seigniorage at all was paid for firewood required for Government purposes. This

Thus this accounts for increase in
Cost of Brick work.

For 1500 Bricks 3000 lbs of
firewood are needed. The
seigniorage on which Comes to — 4 — —

For 20 Cubic feet of Mortar
about 8 Cft of lime are needed.
for which 2½ parahs of stanwar
required. To burn which about
600 lbs will be required or say
1 Cart load. — 1 — —

5 — — —

3. Plastering from 8 to 10 per 100 sq. ft.

In 1867 the rates for plastering
in this Range were 8 and 10 Rs per 100
sq ft. the former for simple plastering
of 2 Coats and the latter for plastering
with Roorkee mortar &c. There was
no rate lower than Rs 8. Hence
entered 10 Rs per 100 sq. ft. in the
revised Estimate partly on account
of the increase of the Cost of firewood
above mentioned owing to the seigno-
rage & also to Cover the increase in
the Cost of the labor which will be
Caused by the removal lofttimes of
the Pers of the Waterloo Viaduct
necessitating greater time being taken
in the work by the passing up
and down of materials and so forth.
In my opinion Rs 8 the lowest rate
for plastering should not have been
entered in the Original Estimate for a
work of this kind. Assuming that
Rs 8 per 100 sq. ft was sufficient in
1867 for the simplest form of plastering
I do not think reasonable objection can
be taken to Rs 10 now for the plastering
of such high walls as those of this Bridge
when the seigniorage now paid for firewood
is also allowed for.

4. Teakwood wrought and put up from
Rs 4 to 5 per Cubic foot.

The increase in this rate is owing
to the extremely unsound logs now available
for use. The Forest Department has
lately very kindly allowed me a deduction
of 10 percent in the measurement to Cover
the inferiority of the timber. But this
does not nearly do so. Moreover Rs 4
per Cft wrought and put up, under
favorable Conditions only just Covers
the Cost of the plainest and simplest
form of Carpentry and does not allow
for any thing else. Whereas in the
Waterloo Bridge not only will a Considerable
Cost have to be incurred in raising &
placing the beams &c on the very high
piers &c but the wood work when
Completed will have to be paid over with
tar and asphalte or with Carson's paint
and the planking must be Covered with
broken stone rammed &c. Allowing for
all this Rs 5 per Cubic foot is far from
excessive. The wood work of the New
Church Cost Rs 7 per Cft wrought & put up

that for Farwells Bridge or the Cranoor Ghaut & for the square Bridge at the foot of that Ghaut Rs 1 1/2 per Cubic foot.

5. The increase in the 2 items of iron work is inserted on account of the present Considerable rise in the English Iron Market owing to strikes and other rise in the price of fuel.

6. Before Consideration I Cannot quite say how the Completion of the New Cranoor Ghaut and other Hill Communications Can be expected to have a favorable influence on the rates of so work like this Viaduct. The Chief expenditure on the Ghaut and other roads has been on rock blasting, rock building earth work &c and Comparatively very little timber work and no brick work has been executed upon them. Moreover in the matter of timber the more numerous the works are the Cheaper Can the work be done; for much of the waste timber which will not Come in for one work Can in that Case be utilized in another whereas when the works are few and small a good deal of refuse timber remains on hand and Cannot be made use of.

7. I have gone into this subject as Carefully as I Can and have endeavoured to prepare a real bonâ fide Estimate which will be likely to prove sufficient and no more for the work to be satisfactorily done. I shall much regret if it still be deemed excessive. But I should I have failed to satisfy you will you be pleased to send in for sanction and provision of funds the original Estimate and I will use my best endeavours to get the work soundly and fairly done for the smaller amount although of course I scarcely hope to succeed.

The Bridge is much needed and delay in its Construction is greatly to be deprecated.

8. If early sanction be accorded to this work I Could spend Rs 50000 upon it during the Current official year

I have the honor to be
Sir
Your most obt Servant
Jas Morant Captain RE
Executive Engineer

P.W. Dept

Proceedings of the Madras Government

Under date the 6th November 1872

Read the following

From the Supt Engineer
7th Dn.

From —— Do —— Do.

(Here enter No 1247/30 dated 6 1872

(Here enter No 1937/15 dated 7/72

The connection of Vellington with the Jaanoor Grant on the one hand and with Polacammund on the other by a substantial bridge at the most convenient site instead of by the present inconvenient structure at a situation which considerably adds to the length and difficulty of the approaches to that station has long been

I presume that the bridge will be built the item: but I do not see the necessity of

(4)

One letter from the Supt Engineer 7th Division to the Secretary to Govt dated 15th October 1872. No. 193.

P.W. 1658/72.

Read the following extract from the Proceedings of the Government of Fort St. George in the Public Department dated 15th October 1872. No. 1937.

Ordered that the Superintending Engineer 7th Division be requested to report whether the bridge proposed to be constructed at Vellington is to be built on the site of the present causeway or on a new site, and if on a new site, why the present causeway is not made available for the purpose.

True extract

(Sd) [illegible]
Secretary

recognized as desirable.
It was undertaken soon
after the Barracks were
built, but the arches of
the structure then de-
signed gave way and
the centring being removed
from sheer badness of
the quality of the bricks
used. In May 1868 an
estimate of Rs 14,660
was sanctioned for erecting
an iron trussed girder
Bridge on the abutments
and piers of the old work,
which are sound and
good. Want of
funds caused the exis-
tence of the work to be
deferred. It being now
considered desirable
that the work be

carried out the Govt
have been surprized
at being called on to
provide a sum of
Rs 2210 in excess of
the original sanction
and the Executive
Engineer was required
to account for the
enhanced rates, with
special reference to
the favorable influence
which the completion
of the new road
and the general im-
provement of com-
munications all over
the Hills was expected
to have had on them.

Captain Morant has satisfactorily accounted for the enhancement of the rates for brick in chunam and plastering by showing that the entire increase goes to swell the revenues of the Forest Department. The Forest Department is also charged with the additional cost of Teak wood the largest item of the estimate, but it is not satisfactory to learn that the falling off of the quality of the Moodoomully Timber is such as to involve a triple increase of Public Works rates in a comparatively short

period. It would appear that that source of supply is being fast worked out. The extra charge on account of iron is attributed to the state of the English market.

The revised estimate of Rs 17,870 is sanctioned and provision on the current year will be made in the Financial Department to the extent of Rs 7000. The Executive Engineer has quite misapprehended the supposed relation of the Honorable Board to the prices of materials. It has

been understood that a
led to a great cheapening
of carriage in some
instances. And His
Excellency the Governor
in Council would be
glad of information
how it has acted on
the prices paid by the
Public Works Departt
for carriage of such an
important article of
their consumption as
Chunam for instance,
the article of which is
imported from the
plains.

(4)

Wat. Loo Bridge

Post Journal
Mapp Office

10-12-72

No 5687

S. Engr 7th Dn
Coimbatore
& Financial Dept

No 193. Supy Engineer's Office,
7th Division
Coimbatore 15th Novr 72.

From The Supy Engineer
7th Dn
15th

To The Chief Engineer
and Secretary to Govt
of Madras.

Sir,

Enclos: 4 -
1 Estimate with Company-time Sheet.
1 Plan.
1 Captn Ivorson's letter No 208 of 5th Novr 1872

With reference to your Memorandum Nos 1164-1871, dated 11th & 20th October 1872, I have the honor to resubmit the revised Estimate with comparative Statement and plan of the Waterloo Bridge, together with Captain Ivorson's letter No 208 of 5th November 1872, explaining the cause of the rise in the rates noticed by you, and under the circumstances represented by the Range Officer I request that Govt will be pleased to sanction the Estimate, and

and call for proofs for the same to the Extent of Rs. 7000 during the current year.

I have the honor to be,
Sir,
Your most obed. Servt

W. Hunter & Co.
Supt. Engr. W.D.

W.D.

Rolls Hulks 1872 Estimate
Form 257 £5089
Thirsby Engineer
To Harbour Engineer
and Secretary
Government
Dock Yard
Madras

Dated 15th March 1872
Rec'd 19th "
No 193

Engineer
10th Dec 1871 Estimate
Estimate for Hulks
Amount Estimate
Rs 117870 for the Hulks
Engage and repairs
Harbour and
Foundation Funds

No 3010, 18th Dec 72
Mr Thirsby

Rolls Estimate No 193 of 1872
No ——— 187—

3010

Ordered that the consideration of these papers be deferred until next year; or such future date as funds may be more available than at present.

Chief Engr

6 Mr Thirsby Engr
5 Neil Sherriff

26
5

Dispd 20/12/72

GWW

Cre 5689

Govt. of {1872} Madras.

PUBLIC WORKS.

To The District Engr.
Nellgherries

Dated

Recd. Encl. 4

G. O. 18th June 1872, 3010.

Nos. 2944 & 2951

Waterlas Bridge - Re

Consideration of the
revised Estimate for
the Waterlas Bridge
ordered & order-
ered.

6 22 Jun 72 8 C Wells