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MADRAS RECORD OFFICE

Government of Madras

Public works DEPARTMENT

G.O. No. 1826 Press
B.P. No. Mis.
296-297.

Dated 16 7 1843.

Not to be folded or roughly handled

No. 6

No: 298. Special. Assistant. Engineers Office
Madura 13th June 1873.

From,

Lieutenant M. Greer. R.E.,
Assistant Engineer
On Special duty
Madura.

To,

Lieutenant Colonel. R. A. Roberts R.E.
District Engineer
Madura.

Sir,

With reference to your Endorsement No: 5585 of the 29th March 1873 on P.O. No: 799 of the 13th March 1873, I have the honor to forward herewith as Revised Estimate for the Ghaut including those of the Bridges below 30 feet span for which the Inspecting Engineer has supplied plans as well as those for the Bangalows proposed to be built for the Officer attached to the Goodaloor Ghauts and Perryaur Works. As I prefer

Enclosures. 15.

1 Goodaloor Ghaut Detailed Estimates.
1 Abstract Estimate do. Rupees—50,000.
1 Specifications do.
1 Comparative Statement do.
1 Estimate for Bridge 70' Span Rs—3270.
1 do. do. 25' do. Rs—1030
1 do. do. 15 do. Rs—700
1 do. do. do.
1 Specifications do. do.
2 Plans. do. do.
1 Abstract Estimate for Constructing Road from foot of Ghaut to Goodaloor Rs 15,450.
1 Specifications do. do.
1 Estimate for Constructing Travellers Bungalow Rs. 3460
1 Specifications do. do.
1 Plans do. do.

15

Lieutenant Colonel Farewell 70 feet truss to that proposed by Captain Pennycuick. I have also estimated for it; Plans for this shewing the abutments and wing walls are not yet Complete, they will be forwarded in a Couple of days. —

2. In forwarding these Estimates, I take the opportunity of making the following remarks on Lieutenant Colonel Farewell's reports. —

3. According to paras 9. the slopes as suggested have been omitted in the new Estimate, with the exception of the portions from the last Zigzag to the foot of the Haute which was Completed (with the exception of metalling) when Colonel Farewell inspected the work. —

4. According to paras 10 and 11 the inside drain has been omitted in the Estimates and the Surface of the Road will be barrel shaped

shaped as suggested. 3

5. As regards para 15, I don't quite understand whether the "Smaller Tunnels" refer to the 3d Class Culverts in the Original Estimate or to the small road Tunnels. I would feel obliged by this information being supplied as soon as possible. The amount allowed for these Culverts by Captain Pennycuick is much too low for Constructing them in Chunam. As I think myself they ought to be Constructed in Chunam, I have increased the rate in the new Estimate; the price of the 1st 2d Class Culverts has also been increased in the new Estimate. —

6. With regards to paras 16, 17, 18 and 19 new Estimates &c have been made out for the Bridges according to Standard plans supplied by Colonel Farewell. The mistake about the 50' Bridges is explained by Captain Pennycuick having designed the Bridges at Madras on his way to the Camp

of

of Exercises and having no Copy of the Channel Estimate, he did not know for certain how many bridges there were of each class. 25ft was originally intended to be a 50 bridge over the 2d Crossing of the Nurinjangum but it was afterwards decided to blast a channel in the rock of the river and so only put a 25' bridge. Rs 350 extra being the cost for the blasting of the Channel the Costs of this Bridges was increased to Rupees 1000.

7. A Road Cess has been established for the 25 Bridges over the nullahs mentioned in para 20.

8. An Estimate for Bungalows Cook houses and Bath Rooms, are submitted but as I do not intend to leave a Camp at the top of the Ghauts this years having Completed the 1st 4 Miles from the head I think this Service ought to be postponed for the present as the houses will be of no

use to me or my subordinates. Constructing a Kraal round the Bungalow will save us nothing as fires will have to be kept up in the two Coly Camps; surrounding these Camps with Kraals would be out of the question owing to the Costs; eventually when the Bungalow is built, I would suggest that trenches 6'x4' be dug instead of having the timber Kraals.

9. In examining into the original Estimates the Forest Department authorities state that they intend charging us Seignorage for the future on all the firewood used by the Coolies, also for the wood used in the Bridges, Mammoatties, building huts &c. &c. the Seignorage demanded for the wood of the Bridges has increased the rate for teak about half a pufsee per Cube foot this, of Course, makes a Considerable difference in the Estimate - the Seignorage

fore

for the firewoods with amounts to. (Rs 1200
per seasons, this item is included in the
Contingencies.

10. The Enclosures, Viz. the
honors to request that it may be informed
on the date that this Revised Estimate
is sanctioned by Government whether I
can proceed with the bridges &c. or shall
waiting for the finished (Ms) Chart will be
be as much as practicable to do as
the Chart furnished this year. (Ms)
Pennycuick's designs with remarks thereon
thereon by Captain Courtenay are
herewith returned.

I have &c/ Sd/ M. Grant Lieut.
Assistant Engineer
Overseeing Establ.

/True Copy/

Richd. Nobbs Lieut. Colo.
Divisional Engineer Madura

No 1029

District Engineer's Office.

Madrid 16th June 1873

(Via Rome)

Lieutenant Colonel H. A. Mulcaster R.E.

Assistant Engineer

Madrid

Sir,

I have the honor to inform you that I received your letter No 1029 dated 13th June 1873 enclosing the following documents.

A Copy of Lieutenant Colonel Luard's letter No 298 dated 13th June 1873 forwarding the following documents.

B. Abstract of Estimate for 15 feet span Iron Bridge for Cordoba Road.

C. Abstract of Estimate for 25 feet span Iron Bridge for Cordoba Road.

D. Specification of Iron Bridges for Cordoba Road.

E. Conditions of Tender.

F. Plan of 2 Bridges 15 feet span and 25 feet span (Scale 1/2 inch = 1 foot)

G. Do. Do. 25 feet span (Scale 1/2 inch = 1 foot)

H. Do. Do. 15 feet span (Scale 1/2 inch = 1 foot)

I. Estimate for a bridge of 15 feet span (Plan F)

J. Estimate for a Bridge of 25 feet span (Plan G)

K Estimate for a Bridge of 40 feet span (Plan H)

(Cover)

Enclosure 1 in No 1 from Lieutenant Colonel Luard dated 13th June 1873.

No 1029.

Copy to the Secretary to Government Public Works Department Madras.

Madras.

A

Copy of Lieutenant Colonel Luard's letter No 298 dated 13th June 1873 forwarding the following documents

B. Abstract of Estimate for 15 feet span Iron Bridge for Cordoba Road.

C. Abstract of Estimate for 25 feet span Iron Bridge for Cordoba Road.

D. Specification of Iron Bridges for Cordoba Road.

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H. Do. Do. 15 feet span (Scale 1/2 inch = 1 foot)

I. Estimate for a bridge of 15 feet span (Plan F)

J. Estimate for a Bridge of 25 feet span (Plan G)

K Estimate for a Bridge of 40 feet span (Plan H)

(Cover)

Enclosure 2 in a letter from the Executive Engineer Madura dated 16th June 1873.

No 1029.

Copy to the Secretary to Government Public Works Department Madras.

Madras.

A

Copy of Lieutenant Colonel Luard's letter No 298 dated 13th June 1873 on the Subject of Cordaloor Chank Works.

PG 16 July 1873 No 296.

P.W. 3604/73.

The Khasi Lechwan Feedatory and the Shirarenee frontier. I shall forward to the Commissioner the Estimate of Rupees 15,000, also prepared by Captain Hennycutt (N.E.) for the road from the foot of the Khasi to Feedatory. The Khasi Estimate of Rupees 18,000 mentioned forwarded, as you will recollect, direct by you to Lieutenant Colonel Fareweather.

3. These Estimates and Plans have not been returned to me, but Lieut. Colonel Fareweather in his letter No. 115 dated 23rd and received 30th Ultimo, notifies the dispatch home per Ship Langley of the 3 Plans, Copies of which are now submitted.

4th. It will be seen from the enclosed letter from Lieut. Greer (E.) dated 13th instant No. 298, that in the preparation of the Estimates now submitted every attention has been paid to the instructions

L. Specification of
M. Abstract Estimate Rs 15460 for Constructing Road from Foot of the Khasi to Feedatory
N. Specification of
O. Estimate for Travellers Bungalow Rupees 3860.
P. Specification of
Q. Plans of

of Government, Contained in the C.P.O. above quoted, and the information afforded in that letter leaves but little for me to add here.

2

II

5. As regards the Khasi Estimates which, as now revised, amount to Rs 50,000, the enclosed Comparative Statement shews a saving of Rupees 3630 by the omissions, as directed, of the culverts and inside drains, but the cost of the bridges &c the designs forwarded by the Inspecting Engineer have increased the Estimate, and a further increase is due to the increased charge for Masonry work, as it has been found by actual experiment that the rates allowed in the original Estimate for this description of work are not adequate for the purpose. The estimate is also considerably increased, as Lieutenant Greer Rs. from Pounds by the assignments now charged by the Forest Department

6.

6. As regards the enclosed Estimate "C" for the Road from the foot of Ghaut to Coodaloor, the Estimate is increased by Rupees 450, thus raising its total to Rupees 15,450. A Comparative statement will follow in due course, but as the Estimate has not been returned herewith there is no Copy of it in this Office, & am unable to ascertain the Contingencies at the present moment.

7. The Enclosed Estimate for the Bungalow amounts, as it will be seen to Rs. 3,460. The Grand total of the Ghaut works then Comprises the following items: viz.ª

a. — Ghaut ——— Rs. — 50,000.
b. — Road below Ghaut Rs. — 15,450
c. — Bungalow ——— Rs. — 3,460.
Grand Total. Rupees 68,910.

or Rs 8,910 in excess of the Sanctioned allotment.

8. As regards the Bungalow

Squire Conceur with Lieutenant Greer in Considering that the Construction may well be deferred for the present. In any case, I think the expensive Kraal can be dispensed with. 300 Running feet of Kraal as proposed will Comprise the Bungalow buildings & an very small enclosures, and shut out all ventilation; and unfortunately the great Cost of Constructing a Kraal is prohibitive of its sufficient extension. — The Cuttings at the head of the Ghaut & Wells with vertical sides, trenches 6'x4'; as proposed by Lieutenant Greer R.E., will be effectual, and they can be made at no trifling Cost to any extent required. By the exclusion of the Bungalow from the Estimate, the total amount of the Ghaut & Road Estimate is reduced to Rs 65,450, leaving only a Balance of Rupees 5,450 to be eventually Sanctioned. ———

9.

9. With regard to the services for the services of a medical subordinate, I am directed to remark that the Lords Justices & Council mention that the Lords Justices & Council Edinburgh Castle have recommended the establishment of an Dispensary at Fort William, which is only 11 miles from Fort George. Under these circumstances Lieutenant Colonel Greene will see the necessity of a Medical Subordinate for the Skye Roads scarcely required.

10. As regards the bridges it will be observed that the designs forwarded by Lieutenant Colonel Pasley have been followed. The spans of 40 feet have been adopted, as now the whole it appears preferable to Captain Pennycuick's designs for the locality in question. I consider however that

4

15

that the foundations of these bridges in the absence of a tender course and of rock joists. The road planks are placed diagonally immediately over the bridges & the [illegible] are these planks - 2" 6" thick becomings - will be considerable & I would certainly recommend longitudinal joists & transverse planks as from experience I am satisfied that with the exception the planks are liable to disturbance. - I think it also only due to myself to state that I cannot approve of the long overhanging cantilevers more used, devoid of counterpoises, in the designs for bridges of 25 feet span -

11. With regard to paragraph 5 of Lieutenant Pasley's letter, I shall be obliged by your furnishing me with instructions as to whether, as I imagine, it is only the road.

roads - tunnels which are to be built without
mortar. —

12. I the Conclusion I have the
honor to state that both Lieutenants Peel
and myself have done our best to make
up for the delay which has occured in
the furnishing of the bridges designs, that
we were directed to follow, the working
seasons is quite Commencing and I shall
feel particularly obliged therefore by
receiving authority at as early a date as
possible to Commence the Construction of
these bridges. . . . —

I have the honor to be
Sir
Your Most Obedient Servant
Richd Rogers Lieut Col RE
District Engineer Madura

P. W. D. 19

No. 1826

Proceedings of the Madras Government,

Under date the 187 .

Read the following :—

From the D.C.Engr., Madura (N.) No. 1029 of 16 June/73/

The estimate for the new Goodaloor Chaut may stand at the sum of Rs. 48,000 first named; as the Forest Department can only be permitted to claim seignorage on timber of value, taken from the jungles for bona fide work. Such a

P. W. D. 1873 Register
Public Works Dept. Despatch
No. 3604.
Dated 30 June 1873.
From the Secretary to Government
To the Superintending Engineer
Madura.

Sir,

I am directed by the Secretary to Government to acknowledge the receipt of your letter noted in the margin, and to request that you will furnish the Government with an estimate for the construction of the Goodaloor Chaut mentioned in your letter.

I have the honor to be,
Sir,
Your most obedient servant,
[illegible]
Secretary to Government.

Dated 17th July 1873.
Superintending Engineer (N.)
Madura.

Sir,

In reply to your letter No. 1029 dated 23rd June/73 I have the honor to forward herewith the Estimate of the Goodaloor Chaut, and to request that the same may be submitted to Government for sanction.

I have the honor to be,
Sir,
Your most obedient servant,
[illegible]
Superintending Engineer
× Ist Circle.

a claim as that for
firewood necessary
for Cooking the Coolies
food, temporarily hut-
-ting them, and keeping
off wild Elephants,
has never before been
made or allowed - And
the use of chunam
may be dispensed
with in the construc-
-tion of all the Drains
and Tunnels except
in the Piers of the 1st
Class Drains - The es-
-timate for the Road
from

from Goodalore to the
Ghaut is sanctioned
at Rs 15,450 - That of
the Bungalow at Rs 2,550/21
deep trenches being
substituted for
wooden palings, and
a partition added
to divide the space
into two rooms of
Equal size - It should
be built at once in
order that it may
have the benefit of
Lieut. Greer's super
-vision - Total of
Sanction

sanctions Rs 66,000; of which Rs 19,898 were spent in 1872/73, Rs 40,000 are allotted for this year and the rest may be had on application-

The Superintending Engineer will be instructed to modify his plan of the superstructure of the Bridges of 25 feet span, with reference to the District Engineers objection to the

cantilevers in which the Chief Engineer concurs - the objections to the mode of laying down the planking are understood not to have been found valid in the actual experience of many timber bridges similarly covered -

Gen. Supt.

4 I. Engr for Porto Novo with all original Enclosures.

5 Dy. Engr Madras
Civil Dept
Controller
Accts General

No 3604

Govt. of {1873} Madras

PUBLIC WORKS.

To the Superintending Engr for
Roads & Communications

Dated

Rect. Encl. 1

from 16th July 1873. No 1826.

Nos 296 & 97

New Gandalore Road.

Reading orders on letter from
the Collr. of Madura,
transmitting revised Estimate
&c, for the works con-
nected with the con-
struction of the Gandalore
Road & the road between
Gandalore.

No 296-97.