Public Works (1897) Department.

G.O., No. 3395 W

DATED 3 December 1897

6/12/97

[Despatch Abstract.]

Bridge over the Salt Creek at Coringa: Estimate of Rs. 60,500 for constructing an iron ~~an~~ girder, — in the Godavari Dt, sanctioned with remark

10/3

7
3.12.97

6/12

BACK PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

BUILDINGS AND ROADS.
CIVIL WORKS.

Government (1897) of Madras.
PUBLIC WORKS.

Recd. } 1897. *Enclosures*
Regd. } *Spare copies*

G.O., No. 3395 W., 3rd December 1897.

DECEMBER.

Bridge over the Salt Creek at Coringa

Estimate of Rs. 60,500 for constructing an iron girder — in the Gódávari district, sanctioned with remark.

No 0756C dated /
856 while the necessity

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

Read—the following papers:—

From the President, District Board, Gódávari, dated 31st July 1896, No. 1422/D.B. Endorsement thereon in the Local and Municipal Department, dated 12th August 1896, No. 940.

From J. C. LARMINIE, Esq., M.I.C.E., Superintending Engineer, I Circle, to the Chief Engineer, Public Works Department, dated Camp Dowlaishweram, 2nd August 1897, No. 938 G.D.

With reference to your memo. No. 3956 C., dated 7th November 1896, I have the honour to resubmit, duly revised, the plans and estimates amounting to Rs. 60,200 for constructing an iron girder bridge over salt creek at Coringa, for your approval and early sanction.

Telegram from the Vice-President, District Board, Gódávari, to the Chief Engineer, Public Works Department, dated Cocanada, 4th November 1897.

Please wire sanction. Estimate iron girder bridge Coringa submitted by Superintending Engineer, I Circle, on 2nd August last.

Note by the Chief Engineer, Public Works Department.

It is observed that the section 18″ × 7″ provided in the original estimate for the 28½ feet span rolled steel girders has been reduced in the revised estimate to 16″ × 6″ without any assigned reason. This alteration is not approved, as it would entail reducing the depth to considerably less than one-twentieth of the span which might result in deflection. It is therefore considered that the original section should be maintained, *i.e.*, that girders 18″ × 7″, which will weigh 75 lb. per foot run, should be provided. This will increase the weight of the iron work by 4½ tons. It is, however, noticed that the abstract estimate shows the total weight of iron work to be 161 tons, which is wrong, for the details clearly prove the correct figure to be 158; therefore, the actual difference is only a ton and a half, but that increases the estimate to Rs. 60,500, to which amount it is now raised.

2. Surki should be used with the mortar as shown in data sheet.

13th November 1897. (Signed) W. B. deWINTON,
Ag. Chief Engineer.

Order—No. 3395 W., dated 3rd December 1897.

The estimate, amounting to Rs. 60,500, as altered by the Chief Engineer, Public Works Department, for constructing an iron girder bridge over the salt creek at Coringa, in the Gódávari district, is sanctioned.

2. Attention is drawn to the Chief Engineer's note recorded above.

3. This sanction has been registered as Local No. 10 W. of 1897–98.

(True Extract.)

Under Secretary to Government.

To the Superintending Engineer, I Circle.
" Local and Municipal Department, with twelve enclosures.

Sxd. T. K. Narayana Aiyangar,

[4 / 500—14-10-97.]

P.W. DEPARTMENT.

Papers to be read in proceedings :—

5 P

Again G.O., dated 189 , No.

Again G.O., dated 189 , No.

Quote Current No. 7333 of 1896, dated 12th August 1897, from the L & M. Dept.

Print " " 8120 " 1897, " 2nd August 1897, " the S.E. I Circle.

" " 10970 " 1897, " 4th November 1897, " the Vice President, District Bd Godavari

Note by the Chief Engineer P.W.D. dy 13-11-97

No 3395 W & 3.12.97

ORDER.

The estimate, amounting to Rs 60,500, as altered by the Chief Engineer P.W.D. for constructing an iron girder bridge over the salt creek at Coringa in the Godavari District is sanctioned.

2. Attention is drawn to the Chief Engineer's note recorded above.

3. This sanction has been registered as Local No 10 W of 1897-98.

CORRS 12/11/97

A.S.H. 30.11.97

21/11/97

To

The Secretary to Govt Local & Municipal Depts for favour of countersignature.

H.T. 27.11.97 13.11.97

The S.E. I Circle

Ewan Ord L & M. Deptt with 12 enclos.

Dsptd 13/12/97

its

its memo

No 3956 C dated 7th Novr

1896 while the necessity

3395

C. No 10970

W

The accy. draft Go. has just come back from the L&M. Dept. with the Secy's counter-initials –

For orders whether it should be sent to "Governor's Camp", or kept over until H.E.'s return.

27-11-97

Send to Govr [illegible]
Govrs camp. Secy
Dep [illegible] [illegible]
cancel

28.11

10970

DEPARTMENT.

READ the following :—

His Excellency the Governor –

FOR ORDERS.

1. An estimate of Rs 60,800 for constructing an Iron Girder Bridge over the Salt Creek at Coringa, Godavari District was dealt with in technical note dated 9th October 1896, but that estimate was, under orders of Government, returned for details of iron work with memo No 3956 C dated 7th Novr 1896, while the necessity

"Flag" G

"Flag" D

for revising the dimensions of the wings and abutments was also pointed out in a note by the Chief Engineer. The estimate ~~has since been~~ was received back revised in August last. with details of ironwork, and the amount is now finally fixed, as far as this office is concerned, at Rs 60500 – vide T note dated 10th inst.– Flag F

2. The details for the ironwork are ~~perhaps~~ much more complete than usual, & have been carefully checked in this office ~~any ever previously~~ received for such work, for it is, as a rule, as difficult to persuade an iron-work contractor to furnish details as it would be to induce a tailor, charging 6 guineas for a suit of clothes, to submit measurements of the different items of cloth and equate the total quantity to fair valuation in an abstract estimate, allowing a reasonable percentage for labour & his own profit.

3. Sanction to this estimate has been, ~~demiofficially~~ telegraphed for, ~~represented~~ by the Local Fund Engineer as ~~urgent~~, as the working season is just commencing ~~being favourable for~~

L.O. No 30

Please keep this till I hear from A F Engr

15.11.97

L.O. 15/11/97

Flag A

It therefore seems to be a question for consideration whether it is worth while to spend so much money on a bridge, whe[n] improving the ferry traffic service might meet all requirements much more economically. This question must have, however, be[en] carefully discussed by the District Board, & as they have submitted th[e] estimate for sanction it is presum[ed] that they consider it necessary.

13.10.97

FOR ORDERS.

~~work while there is much to be done.~~

C.C.W.S.
12/11/97

4. The necessity for the bridge is explained in the report attached to the estimate, & it will apparently be of great public benefit. It is said, the Cosmja river is however, subject to rapid silting up & has ~~[illegible]~~ narrowed at the proposed site of the bridge "some 60' or more" each side in the last 15 years. This is at the rate of 8 feet per annum, & if this silting continues the bridge may become unnecessary at a by no means advanced stage of its lifetime.

P.W.1

4

48

Note by the Chief Engineer

It is observed that the section 18"×7" provided in the original estimate for the 28½ feet span rolled steel girders has been reduced in the revised estimate to 16"×6" without any assigned reason. This alteration is not approved, as it would entail reducing the depth to considerably less than $\frac{1}{20}$th of the span which might result in deflection. It is therefore considered that the original section should be maintained i.e. that girders 18"×7", which will weigh 75 lbs per foot run, should be provided. This will increase the weight of the iron work by 4½ tons. It is, however, noticed that the abstract estimate shows the total weight of ironwork to be 161 tons which is wrong for the details clearly prove the correct figure to be 158, therefore the actual difference is only a ton and a half but that increases the estimate to Rs 60,500 to which amount it is now raised.

2. Surkhi should be used with the mortar as shown in data sheet.

13.11.97

E.W.

CWBS
12-12-97.

Note by Supd. C.E.

It is observed that the section 18"×7" provided in the
original estimate for the 28½ feet span rolled steel
girders has been reduced in the revised estimate
to 16"×6" without any assigned reason. This
alteration is not approved, as it would
entail reducing the depth to considerably less
than 1/20th of the span which might result in
deflection. It is therefore considered that the original
section should be maintained i.e. that girders 18"×7",
which will weigh 75 lbs per foot run, should be
provided. This will increase the weight of
the ironwork by 4½ tons. It is, however, noticed
that the abstract estimate shows the total weight
of ironwork to be 161 tons which is wrong for the
details clearly prove the correct figure to be
158; therefore the actual difference is only
a ton and a half, but that increases the
estimate to Rs 60500 to which amount it is
now raised.

CWBS
11.11.97.

Public Works DEPARTMENT.

C. Nos 7333, 8120 & 10970.

HIS EXCELLENCY THE GOVERNOR.

The Hon'ble Sir Henry Bliss K.C.I.E

~~THE HON'BLE SIR HENRY BLISS, K.C.I.~~E.

~~THE HON'BLE MR. GROSE, C.I.E.~~

SUBJECT.

Iron girder bridge over the salt creek at Coringa

FOR ORDERS.

An estimate of Rs. 60,800 for constructing an Iron Girder Bridge over the Salt Creek at Coringa, Godavari District, was dealt with in technical note dated 9th October '96 but that estimate was, under orders of Government, returned for details of iron work with Memo No. 3956 C d/ 7th November 1896, while the necessity for revising the dimensions of the wings and abutments was also pointed out in a note by the Chief Engineer. The estimate was received back revised in August last with details of iron work, and the amount is now finally fixed, as far as this office is concerned, at Rs. 60,500. Vide T note dated 10th Instant.

Flag G.

Flag D.

Flag F.

3. The details for the ironwork are much more complete than usual, & have been carefully checked in this office. Sanction to this estimate has been telegraphed for by the Local

Fund

Fund Engineer as the working season is fast commencing.

4. The necessity for the bridge is explained in the report attached to the estimate, and it will apparently be of great public benefit. The Coringa river is said, however, to be rapidly silting up and has narrowed at the proposed site of bridge, "by some 60' or more each side" in the last 15 years. This is at the rate of 8 feet per annum, & if this silting continues the bridge may prove unnecessary at a by no means advanced stage of its lifetime. It therefore seems to be a question for consideration whether it is worthwhile to spend so much money on a bridge, when improving the ferry boat service might meet all requirements much more economically.

Flag A.

5. This question must have, however, been ~~completely~~ carefully discussed by the District Board, and as they have submitted the estimate for sanction it is presumed that they consider it necessary. A demi official letter just recd. from the D. B. Engineer in answer to inquiries in this subject from this office is attached. The bridge is, in his opinion, necessary.

CAMS
15/11 97.

and I concur

25. 11. 97

Public works (1897) Department.

D.O. CURRENT No. 14

D.O.

From P. W. Brown Esqre

No. —

Dated 21' November 1897

Received — 25th do —

Registered — Do do —

Enclosures —

Spare copies —

SUBJECT.

Coringa Bridge

Particulars regarding silting of the river at site of the — .

BACK PAPERS.

G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.

25-11-97

8120

Coconada
21-11-97

My dear Burlton

Coringa Bridge

The silting of the river at the site of the bridge is not continuous. I judge from the approaches we have had to make to our ferry that it has advanced very little if at all the last two years. But it is to be remembered that there is always a large volume of water when the Godavari is in flood and for which provision must be made. I would therefore deprecate having the bridge shorter

---

Telegram

Public works (1897) Department.

CURRENT No. 10970

3

Order

I [illegible] [illegible] the estimate

From The Vice President
District Board
Godavari

No.

Dated 4. 11. 97
Received 5. 11. 97
Enclosures
Spare copies

SUBJECT.

Iron girder bridge over salt creek at Coringa: Requesting that sanction to the estimate for construction ... may be wired.

P. W. 29.
1,000—27-4-97.

BACK PAPERS.

G.O.	No.	Department.	Date.

It is unlikely much more silting will take place for the yearly floods must find ~~on~~ one of the exits this way –
The river is well defined to the mouth, and although the bar is shallow a considerable quantity of water passes and it is very broad.
A Causeway will not answer it is too deep and we cannot restrict the depth for vessels come above the bridge to dock hence the opening – neither can we have the bridge above the docks for they continue for a considerable distance up the river –

The Ferry is always unsatisfactory whatever we do – on account of tides & winds & floods –
Of course there are many days all right, but in very low tides & stormy winds it is a trouble –
there is a large traffic a great in fact the greater portion of the fresh food supply for Cocanada comes this way and there is always trouble at the Ferry –
The bridge is certainly wanted as is a bridge at Yanam to connect Cocanada with Yanam. Injeram and numerous wealthy villages. – The French Government are now making proposals with us about the Yanam bridge – but of course this bridge is the first consideration

BACK PAPERS.

G.O.	No.	Department.	Date.

it would be no use having a bridge at Yanam & a road to Injeram ~~there~~ were the route to be cut in two at Coringa. Cart traffic would never face such an obstacle. The Cholinga bridge you built was the first step. The Mullapalem bridge I built the second. This is the third & the Yanam in the future the fourth — I do not think that the river will so silt up that the bridge will not be required; and seeing the yearly floods I wouldn't like ~~the~~ to make the bridge shorter —

Also as I said above you will see it is really a portion of a large project which is bound to be taken up in the future — At present there is only one road out of Cocanada on the South (Kotapilly rd) and that does not command the country which will be served by the route of wh. this bridge is a portion

Yours sincerely
P. H. Browne

an —— may be a

P. W. 29.
1,000—27-4-97.

BACK PAPERS.

BACK PAPERS.

No.	Date.

FURTHER PAPERS.

No.	Date.

[P. W. 60 / 250—28-4-97.]

Code Class. D/s.

INDIAN TELEGRAPHS. Monthly Number. 22216

To (Office) Madras. From (Office) Cocanada

Words.	Day.	Hour.	Minute.	Official Instructions.
32	4	19	44	Dfs

To (Person) The chief engineer P. W. D.

From (Person) Vice President district Board Godavari

Please wire sanction estimate+ iron girder bridge Coringa submitted by superintending engineer first circle on second august last -

+Rs 8120 with I

64 Word Form. F C 2

...ecd from	LN.	Sent to	LN.	
Hrs. Mts by		At Hrs. Mts. by	MADRAS	Telegraph Master 4/9/97

C G P—No. 634 T—7 2 97—2400000

The longitudinal girders have been reduced in section from 18"x to 16"x6"; no reason has been given for this reduction which appears inadmissible. The reduced section will answer, but parts

Yes

[illegible]

BACK PAPERS.

BACK PAPERS.

No.	Date.

FURTHER PAPERS.

No.	Date.

Public Works Department.

Current No. 8120

Letter No 938 Gw.

Dated 3rd August 1897

From the Supg. Engineer I Circle.

NOTE BY TECHNICAL SECTION.

Name of work Iron girder bridge over Salt creek at Coringa. Godavari Dt.

Amount of Estimate Rs 6020

With reference to this office Memo No. 3956 C dated 9th Novr. 1896, the S E I Circle resubmits the estimate for erecting an iron girder bridge over the Salt creek at Coringa in the Godavari Dt. duly revised as per para 2 of C.E's note dated 12th Oct 1896 together with details of iron work.

The estimate now provides for increased width to the wings from 6' to 6'6" and for abutments from 7' to 7'6".

The longitudinal girders have been reduced in section from 18"x to 16"x6". no reason has been given for this reduction which appears

Yes | inadmissible. The reduced section will answer, but parts

[illegible]

P. W. 60
200—28-4-97.

PAPER

deflection, being less than 1/20 the span.

The section originally provided viz. 18"×7" should be adhered to vide calculations. | Yes

Weight on longitudinal girders:

Bearing plates 28½ × 4⅙ × 10 — = 1187

Metalling — 28½ × 4⅙ × 7½" × 137 = 10,168

Live load — 28½ × 4⅙ × 120 — = 14,250

Total lbs 25,605

or Tons 11.43

Then WL = 11.43 × 28.5 = 325.75

A section of 16"×6" weighing 62 lbs will answer but as the span is 28½ ft & as the depth should not be less than 1/20 the span for deflection, a section 18"×7" weighing 75 lbs will have to be provided.

Already calculated by me, on 9-10-96, in margin of original technical note.

This will make the weight for rolled steel beams of this section = 31 tons

Allowed in estimate = 44118 + 15280 lbs = 59398 lbs = ~~22~~ 26.5 tons

Diff: = ~~9~~ 4.5 tons.

∴ This item is under estimated by ~~9~~ 4.5 tons

In calculating the cross girders, only the weight between centre of points of bearings has been considered, the portion overhanging the bearings is neglected as it acts as a counterpoise against deflection thus:-

Weight

Long: girders — 2 × 28½ × 64½ — = 3677

Flooring plates 28½ × 9' × 10 — = 2565

Metalling — 28½ × 9' × 7½" × 137 = 21,963

Live load — 28½ × 9' × 120 — = 30,780

Total lbs 58,985

or Tons 26.33

∴ WL = 26.33 × 9 = 236.97 for [illegible] section 12"×6" weighing [illegible] & this section [illegible] provided.

This may be allowed to stand.

The major portion of the iron work has been checked & found correct, details for lifting shutters & gear are not sufficiently shown to admit of accurate check but may perhaps be assumed to be correct.

8/11/

Yes. To reduce the estimate on this account might entail another years delay.

DW Please see [illegible] No 10970, [illegible] from the Dist [illegible]

T.

Are the following items fair:-

(1) Transhipment ...... Rs 2022 ?

(2) Erection charges &c. " 4831. ?

Rs 2022 = Rs 12-12 a ton and

" 4831 = " 30-9 " "

2. Why do you pass 161 tons in the abstract estimate when the details of ironwork shew only 158?

C.H.W.S.

9/2.

[illegible] these are

ndexed.

overlooked this. This will somewhat affect the estimate which must be corrected accordingly, but if the transhipment and erection charges are excessive, as they seem to be, it may perhaps be possible to keep the total of the estimate within Rs 60,200. Treat this as urgent as the working season is slipping by.

CWBS
9.11.97.

D.P.W./ The transhipment charges have been reduced from Rs 30 to Rs 25 per ton for heavy pieces. The latter rate was allowed to Messrs. Burn & Co. for the Tuticorin screw ~~pile~~ pile pier, a distance nearly 2/3 greater than Cocanada.

(2). The erection charges, viz. Rs 30 per ton does not appear heavy for work of this nature, a rate of Rs 50 per ton was paid for ordinary girder bridges on the Vythiri - Gudalur road in the Wynaad exclusive of transit charges.

3. I regret of having overlooked the tonnage under erection charges, this has [illegible] corrected.

[illegible] orders as to increase [illegible] bridges

longitudinal girders consequently I did not alter the estimate, this has now been done & the amount increased from Rs 60,200 to Rs 60,500.

10.11.97

The estimate may be sanctioned with the accompanying note by the Chief Engr. P.W.D.

CWBS
11.11.97.

[illegible] drafts [illegible]

13.11.97

S. E. I. 1000—20-2-97.

3395 W

Public Works (1897) Department.

CURRENT No. 8120

Order

From J. C. Larminie Esq.
Supdg. Engr. I Circle
To The Chief Engineer, P.W.D.

No. 938 G.D.

Dated 2.8.97
Received 16.8.97
Enclosures 12 (6 plans)
Spare copies

SUBJECT.

Iron girder bridge over salt creek at Coringa — Resubmits plans and Estimates of Rs. 60,200/- for constructing an — for sanction

Indexed.

BACK PAPERS.

G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.

S. E. I. / 5 1000—20-2-97.

Poul

2

No. 938 G.D

2

From

J. C. Larminie Esq. M. I. C. E.
Superintending Engineer,
First Circle.

Enclosures. 12. To

6 Plans sent in another cover - by bookpost
1 Report
1 Data sheets
1 Cl. Estimate for Bridge
1 Estimate for approaches
1 Specification for Ironwork
1 Detailed Esti for Do

12

The Chief Engineer
P.W. Department.
Madras.

Waltair, 2/8/1897.
Camp Dowlaishweram.

Sir,

With reference to your Memorandum No: 39560 dated 7th November 1896, I have the honour to resubmit duly revised, the plans and Estimates amounting to Rs 6020 for Constructing an Iron girder bridge over Salt creek at Coringa for your approval and early sanction.

I have the honour to be,
Sir
Your Most obedt St
J C Larminie
Supdg Engineer 1st Circle

2/8

Comd 2/8

Indexed.