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TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

P.W.D. DEPARTMENT

G.O. No.	<u>204</u>	Press.
B.P. No:	<u>—</u>	Mis.
Dated	<u>25.1.1886</u>	<u>198</u>

Not to be folded or roughly handled

25TH JANUARY 1886, No. 204 W., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

READ—the following letter from Colonel J. BEATTY, R.E., Superintending Engineer, IV Circle, to the Chief Engineer, Public Works Department, dated Coimbatore, 19th December 1885, No. 502 E.W.:—

I have the honor to forward, for sanction, two plans and estimates, amounting to Rs. 59,000, for the works noted below, together with two reports, two specifications, two extract proceedings of the district board, South Canara, and two original letters to the address of the Chief Secretary to Government, Financial Department, sent through this office by the president of the district board.

2. The design of the iron structure is nearly the same as that sanctioned in G.O., No. 794 W., dated 31st March 1885, for the Yekkar bridge.

	RS.
1. For spanning, with rolled iron girders, &c., the existing masonry abutments and piers of the Nidkul bridge, in the 4th furlong 44th mile of the Kodaikal ghât, road No. 4, amount of estimate.	38,000
2. For spanning, with rolled iron girders, &c., the existing masonry abutments and piers of the Moondaji bridge in the 1st furlong 46th mile of the above road	21,000
Total ...	59,000

ORDER—dated 25th January 1886, No. 204 W., Public Works.

The estimates for spanning, with rolled iron girders, the existing masonry piers and abutments of the undermentioned bridges, on the road No. IV from Mangalore to Mysore *via* Kodaikal ghât, are sanctioned:—

	RS.
Nidkul bridge ...	38,000
Moondaji do. ...	21,000

2. These sanctions have been registered as Local Nos. 34 and 35 W. of 1885-86.

(True Extract.)

Major, R.E.,
Under Secy. to Govt., P.W.D.

To the Superintending Engineer, IV Circle,
Financial Department (L.P.), with enclosures.

Encl. E. Fernandez.
Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

Gobt. of (1886) Madras.

PUBLIC WORKS.

Dated January, 25th.

Recd.

Encl.

G.O., 25th Jan. 1886, No. 204 W.

JANUARY.

Bridges on Road from Mangalore to Mysore via Kodaikal Ghat

Estimates for spanning with rolled iron girders two —, sanctioned.

31ST MARCH 1885, No. 794 W., PUBLIC WORKS.

31/3

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

READ—the following papers:—

From Colonel J. BEATTY, R.E., Superintending Engineer, IV Circle, to the Chief Engineer, Public Works Department, dated Coimbatore, 9th February 1885, No. 61 E.W.

I have the honor to forward, herewith, three alternative estimates for a bridge across the Yeckar stream, $13\frac{3}{4}$ miles from Mangalore, on the road to Mulki.

2. From the report accompanying estimate No. 1, dated 28th March 1884, for a rolled iron girder bridge of 30 feet span to cost Rs. 6,360, it will be observed that the catchment basin above the site of the bridge is stated to be "within 12 square miles," and that "below the bed the soil consists of a firm bed of clay."

3. Subsequently I was informed that the maximum rainfall recorded in that locality was 10.45 inches in 24 hours. I calculated that the discharge from 12 square miles for this rainfall would be 1,686 cubic feet per second; that the sectional area of the opening up to 14 feet would be 396 square feet, giving a mean velocity of the current through the opening of about 4.25 feet per second; and, as 10.45 inches in 24 hours is by no means an exceptionally heavy rainfall for the West Coast, I recommended the provision of a flooring and aprons, broader foundations, and a roadway, or bottom of girders supporting it, placed at 3 feet above M.F.L.

4. The result has been that the estimates Nos. 2 and 3 have now been submitted as alternatives; either of which may be adopted, if you do not approve of estimate No. 1. As estimate No. 1 is again submitted with the others, I understand that the Local Fund Engineer is still of opinion that his first estimate was quite sufficient.

5. I prefer estimate No. 2, which amounts to Rs. 15,000 and provides for a roadway, the same as in the first design, but raised sufficiently above maximum flood level, and for a flooring and aprons. The flooring and aprons have, however, I consider, been made needlessly expensive, and I would reduce the cost of this bridge by omitting the concrete under the flooring and aprons, by which there would be a saving of Rs. 651, and by using large packed stone for the aprons instead of rubble masonry, there would be a further saving of Rs. 568. The cost of the bridge would thus be reduced to Rs. 11,781.

6. Estimate No. 3 provides no flooring or aprons, but is for a bridge of 40 feet span on iron lattice girders to cost Rs. 11,000. The drawings which accompany this estimate do not give sufficient details of the iron work to enable one to understand clearly what is intended, and, in considering a design that provides no flooring or aprons, it is to be specially noted that, as stated in the report accompanying the estimate No. 1, "during and after heavy rains the channel of the stream is submerged, the water spreading over the fields."

7. Of the three estimates I recommend the one marked No. 2, the cost being reduced by the provision of less expensive flooring and aprons; and, as the cost exceeds Rs. 10,000, it requires your sanction.

31st MARCH 1885, No. 794 W., PUBLIC WORKS.

No. 473-C.

MEMORANDUM.

Referred to the Board of Revenue, with remark, that estimate No. 2, reduced as suggested by the Superintending Engineer, has the approval of the Chief Engineer, Public Works Department.

2. If the Board concurs, that estimate will be submitted for the sanction of Government.

9th March 1885. (Signed) J. SHAW-STEWART, Colonel, R.E.,
Chief Engineer, P.W.D.

Proceedings of the Board of Revenue, dated 21st March 1885, Mis. No. 2749.

Read—Memorandum from the Public Works Department, dated 9th March 1885, No. 473-C.

Resolution—dated 21st March 1885, Mis. No. 2749.

The estimate No. 2, as reduced by the Superintending Engineer, may be submitted for the sanction of Government, as proposed.

(True Extract.)

(Signed) C. F. MACCARTIE,
Acting Sub-Secretary.

To the Chief Engineer, Public Works Department,
with Superintending Engineer's letter and enclosures returned.

ORDER—dated 31st March 1885, No. 794 W., Public Works.

Estimate No. 2 (reduced to Rs. 11,781, as proposed by the Superintending Engineer, IV Circle) for constructing an iron lattice girder bridge across the Yeekar stream, on the road from Mangalore to Mulki, is sanctioned.

2. This sanction has been registered as Local No. 57 W. of 1884-85.

(True Extract.)

(Signed) J. SHAW-STEWART, Colonel, R.E.,
Secretary to Govt., P.W.D.

To the Board of Revenue, with thirty enclosures.
" Superintending Engineer, IV Circle.
" Financial Department.

Exd. A. Grubert.
Spare Copies

20/11/13

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of Madras.

PUBLIC WORKS.

Dated March, 31st.

Recd.

Encl.

G.O., 31st March 1885, No. 794 W.

MARCH.

Iron lattice girder bridge
across the Yeckar stream

Estimate for —, on the road from Manga-
lore to Mulki, sanctioned.

Public Works Department, 1885-86.

No. 2046

Chd
Kindly mark papers
the printed 28/3/86

27/3/86

AC Printed only 28/3/86
Letter to the Secy
to the Govt. of Madras

27/3/86

Sanctioned

18/4/86

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of Madras

PUBLIC WORKS.

Public Works Department, 1885-86.

No details of the
work are given
but as they are similar
to those for Yeckar
bridge work (of which
the span is the same)
sanctioned in L.O. No. 786
of 31st March 1885.

measures that the
estimate for the
work is sanctioned.

[Signature]
18/4/86

Iron lattice girder bridge
across the Yeckar stream

Estimate for —, on the road from Mangalore to Mulki, sanctioned.

no much care being taken
to remove the timbers the plates to
form the roadway will be laid
on a new iron gravel. The width
of roadway is to be 16 feet. That
the main drainings have been
provided but, possibly, an even
slight, wheel-guards have
been omitted. The old timbers
might serve for that purpose.
The ends of the main girders
will cost in beddning stones. —
It is stated in the whole of the
works that it is not to be
in the case of the main girders
being fully bedded with a
bedded stones and gravel to
be twenty eight inches thick
and the main girders to be

185

Public Works Department, 1885-86

Current No. 502
Letter No. 502
Dated the 18th June 1880
From the SE. N. 2nd

NOTE OF REMARKS

has failed. The abutments and piers are found to be weak and are said to be very likely soon the tops of piers and abutments are 5 feet above M.F.L. so that when to this height the bedding stones, 1 foot thick, are added the under surfaces of the main girders will be 5 feet above M.F.L. — an ample waterway. The Boondaji bridge is of 5 bays, each of 30 feet span, and its timber superstructure has failed. As in the case of the Yekkar bridge there also the abutments and piers are said to be founded on rock and to be perfectly sound — the waterway is ample. The M.F.L. now stands 5 feet below the tops of piers and abutments so that with the addition of the bedding stones, 1 foot thick, the main girders will be 7 feet clear above it.

3. The proposed iron girder structure of the two bridges are to be carried out on the

N^o 502
4/11/85

Supy. Engineer's Office II Circle
Coimbatore, 19th December/85

From,

The Superintending Engineer
II Circle

To,

The Chief Engineer
P.W. Department

Sir,

Enclosures 12.

- 2 Estimates
- 2 Plans
- 2 Specifications
- 2 Reports
- 2 Extracts from
Pro. Dist. Board
- 2 Letters

I have the honor to forward for sanction 2 Plans and Estimates amounting to Rs 57,000 for the works noted below, together with 2 Reports, 2 Specifications, 2 Extract Proceedings of the District Board South Canara, and 2 original letters to the address of the Chief Secretary to Government, Financial Department, sent through this office by the President of the District Board.

2. The design of the iron structure is nearly the same as that sanctioned in G.O. No. 794 W. dated 31st March 1885 for the Yekkar Bridge.

Y/
For

1. For spanning with Rolled
Iron girders & the existing
masonry abutments and
piers of the Vidgub Bridge
in the 4th furlong 4 1/2th mile
of the Kodikalghaut Road
No. 4 amount of Estimate Rs 38,000

2. For do-do of the Moon-
daji Bridge in the 1st furlong
1/2 mile of the above road 21,000

Total Rupees 59,000

I have the honor to be
Sir
Your most alt. servt

L. Beatty - Colonel MC
Supg. Engineer II Circle

LB

25/4/69

From

The Supy. Engineer,
Fourth Circle.

GO 794 Wd/31. 3. 85

Dated 19th Decr. 1885
Recd. 21st Decr. 1885

No. 502
Wd.

Enc. 12.

Recommends:-

For sanctioning for execution 2 estimates - one of Rs. 38,000 for spanning the masonry abutments and piers of a bridge; and another of Rs. 24,000 for an iron superstructure over the Moundaji Bridge on the Kodakal Ghat.

B+R
Civil Works

PUBLIC WORKS DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Under date the

Read the following

From the Supy. Engineer IV Circle. H. S. No. 502 & W. d/19th Decr. 1885.

The estimates for spanning with rolled iron girders, the existing masonry piers and abutments of the undermentioned bridges on the road No. III from Mangalore to Mysore via Kodakal Ghat, are sanctioned:-

Kodakal Bridge - Rs. 38,000.
Moundaji Bridge - " 24,000.

2. These sanctions have been registered as Local Nos. 34 & 35 Wd of 1885-86.

by 21/1/86

To The Supy. Engr. IV Circle
Financial Department (L.F.)
with enclos.
(To The Chief Secretary for favour of counter-signature)

Recd.

21/1/86

CR

21/1/86

11025

Govt. of Madras

PUBLIC WORKS.

28/11/94
Prep

Order

to the

Bridges in road from

Mungitla to

via Kadachal Peak

Ests for planning with

other road finders for

sanctioned.

60
4