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(3) Initials of the Referencer

MADRAS RECORD OFFICE.

Government of Madras.

Financial DEPARTMENT.

G.O. No. 55	Press Mis.
88-90	88-90
Dated 12-1-	18 75.

10/11

Not to be folded or roughly handled

Proceedings of the Madras Government, Financial Department,
13th January 1875.

LOCAL FUNDS—BRIDGES.

Read the following papers :—

No. 88. From A. MACGREGOR, Esq., President of the Local Fund Boards, Malabar, to the Hon. D. F. CARMICHAEL, Acting Chief Secretary to Government, Fort St. George, dated Calicut, 30th October 1874, No. 311.

Adverting to G.O., No. 1517, dated 9th September 1874, on the subject of an amended plan of bridge proposed to be built over Yadathorai river, I have the honor to forward copy of a letter and a plan in original, received from the Special Executive Engineer, Wynaad.

From Lieutenant-Colonel R. B. KENNEDY, Special Executive Engineer, Wynaad, to A. MACGREGOR, Esq., President of the Local Fund Boards, Malabar, dated Lackady, 14th October 1874, No. 737.

With reference to G.O., No. 1517, dated 9th September 1874, I have the honor to state that the reasons for increasing the waterway of the Yadathorai bridge are, that when I sent in the revised estimate, the experience of three seasons had unmistakably proved the necessity of it.

2. There is a rough temporary bridge over the river of 73 feet span, and 19 feet height above lowest bed of river. In the monsoon of 1871 and 1872, I found the river washed away the embanked approach at both sides, but as there was a jamb of floating timber and bamboos collected at the bridge, I attributed the mishap to that cause. In 1873 there was nothing of the sort, but the same thing occurred from the mere flooding of the river, as also this year, though the floods were not so high. The fact is that the immediate bank of the river near the bridge is slightly higher than the adjacent land on both sides, so that, as soon as the former is topped a large body of water is collected, and, not having its natural escape, owing to the embankments forming the approach, greater force is exerted against the abutments of the bridge, and as these are not proposed to be of solid masonry, they would infallibly be carried away unless a larger escape for the flood-water is allowed.

3. The original permanent bridge was designed to be one span of 60 feet, and at first I thought of changing this into three of 30 feet, using plate girders, but, on inquiry, I find that the Warren girders (which I now propose), while they give 30 feet greater span, are not more expensive ; and a considerable saving is made by the rough stone abutments being thrown so far upon the bank that they need not now be built up from the bed of the river, as would be necessary with a smaller span ; the Warren girder is also much more portable and easier put up.

4. I do not think openings in the embankments would answer as well, and would be more expansive. In one very similar position (where I tried that plan) I found that the accumulated water, when the river began to go down, rushed through with such violence that the floor of the opening was deeply scoured. This would most certainly be the case on the right bank ; as, soon after the river passes the site of the bridge, its course turns abruptly to the right, and the flood water on that side finds its way to it in a straight line through a deep hollow. I enclose a section of the river and adjacent ground showing the height of floods.

Referred for the remarks of the Chief Engineer.

(Signed) J. STURROCK,
Acting Under Secy. to Govt.

4th November 1874.

Transferred to the Financial Department with opinion of the Chief Engineer.

4th January 1875. (Signed) G. W. WALKER, Colonel, R.E.,
Secretary to Government, P.W.D.

No. 89. No. 3.

NOTE.

The section and information now supplied by Lieutenant-Colonel Kennedy justify a great increase of waterway over that originally proposed; but he must be well aware that the information supplied by him even now does not at all come up to the standard laid down in the letter from the Government of India recorded with G.O., No. 1659, of 11th July 1870, on the subject of his road and bridge estimates—indeed, that it does not enable any one to calculate the real requirements of the river with any certainty.

2. But the Chief Engineer is perfectly aware that the Executive Engineer has not the means at his disposal of preparing such documents as would satisfy the Government of India; and his own knowledge of the ground is sufficient, with the information now before him, to enable him to form a positive opinion on the subject. That opinion is, that with additional waterway given in each of the embankments, the spans proposed by Lieutenant-Colonel Kennedy will suffice for the river itself. The high floods are not entirely those of the river, but are probably aggravated by backwater of the larger stream into which it runs; and it is doubtful if their extreme height has yet been accurately determined. To assist in drawing them off, openings should certainly be given in the embankments of at least 12 feet in width by 6 in height; and they should be well floored to resist scour. Subject to the necessary addition on this account, and possibly on account of additional height to the bridge, the revised plan and estimate of Rupees 16,400 may be passed.

FORT ST. GEORGE,
4th January 1875. (Signed) G. W. WALKER, Colonel, R.E.,
Chief Engineer, D.P.W.

No. 90. ORDER THEREON, 13th January 1875, No. 55.

The estimate, amounting to Rupees 16,400, is passed, and Colonel Kennedy's attention is called to the Chief Engineer's note.

2. The President's letter should have been submitted through the Board of Revenue.

(True Extract.)

D. F. CARMICHAEL,
Acting Chief Secretary.

To the Board of Revenue.
" Public Works Department, with plan.
" Accountant-General.

Exd. J. H. Burns.

Govt. of {1875} Madras.

FINANCIAL.

To THE BOARD OF REVENUE,
&c., &c., &c.

Dated January, 13th.

Recd. Encl.

G.O., 13th *January* 1875, *No.* 55.

JANUARY.
Nos. 88—90.

Malabar District Local Fund.—An estimate, amounting to Rupees 16,400, for construction of a bridge over the Yedathoral river, sanctioned with remarks.

(Copy)

No 737.

To

The President
Local Fund Board
Malabar. Calicut

Sir,

With reference to G.O. No 1517 dated 9 September 1874, I have the honor to state that the reasons for increasing the waterway of the Gedatoray Bridge are;— that when I sent in the revised Estimate, the experience of three seasons had unmistakeably proved the necessity of it.

There is a rough temporary bridge over the river of 73 feet Span, and 19 feet height above lowest bed of river. In the monsoon of 1871 and 72, I found the river washed away the embanked approach at both sides, but as there was a Jamb of floating timber and bamboos collected at the Bridge, I attributed the mishap to that Cause; in 1873 there was nothing of the sort, but the same thing occurred from the mere flooding of the river, as also this year, though the floods were not so high. The fact is that the immediate bank of the river near the bridge is slightly higher than the adjacent land on both sides, so that, as soon as the former is topped, a large

a large body of water is collected, and not having its natural escape, owing to the embankments forming the approach, greater force is exerted against the abutments of the Bridge, and as these are not proposed to be of solid masonry, they would infallibly be carried away unless a larger escape for the flood water is allowed

The original permanent bridge was designed to be one Span of 60 feet, and at first I thought of changing this into 3 of 30', using plate girders but on enquiry, I find that the warren girders (which I now propose) while they give 30 fat greater Span, are not more expansive; and a considerable saving is made by the rough stone abutments being thrown so far upon the bank that they need not now be built up from the bed of the river, as would be necessary with a smaller Span; the warren girder is also much more portable, and easier put up

I do not think openings in the embankments would answer as well. and would be more expensive; in one very similar position (where I tried that plan) I found that the accumulated water, when the river began to go down, rushed through with such violence that the floor of the opening was deeply scoured; this would most certainly be the case on the right bank, as, soon after the river passes the sight of the bridge, its course turns abruptly to the right, and the flood water on that side finds its way to it in a straight line through a deep hollow. I enclose a section of the river and adjacent ground showing the height of floods.

Lackaig 14th October 1874.

I have the honor &c.
(signed) R. B Kennedy
Lt. col
Spl. Ry. Engineer

(True Copy)

Alexander
President

No 3.

MADRAS

89

The Section and informa-
-tion now supplied by Lieut.t Colonel
Kennedy justify a great increase
of waterway over that originally
proposed - But he must be well
aware that the information sup-
-plied by him even now does not at
all come up to the standard laid
down in the letter from the Govern-
-ment of India recorded with G.O.
No. 1659 of 11th July 1870 on the subject
of this Road and Bridge estimates.
Indeed that it does not enable
any one to calculate the real
requirements of the River with any
certainty -

In a letter from the
Resident Gen.l Kund
Rama Raidu dated
30 Octr 1874 No 3/1.

Bk. 21584/2/74.

Copy of letter from the
Gl. Sa. Inspection and
Engineer of the Godavery
Irrigation and Canal
Circle

Rec.d 22/11/74

But the Chief Engineer is perfectly aware that the Executive Engineer has not the means at his disposal of preparing such documents as would satisfy the Govt of India; and his own knowledge of the ground is sufficient, with the information now before him, to enable him to form a positive opinion on the subject. That opinion is, that with additional waterway given in each of the embankments, the spans proposed by Lieut Colo Kennedy will suffice for the River itself - The high floods are not entirely those of the River, but are probably aggravated by backwater of the larger stream into which it runs; and it is doubtful

if their extreme height has yet been accurately determined. To assist in drawing them off openings should certainly be given in the embankments of at least 12 feet in width by 6 in height; and they should be well floored to resist scour. Subject to the necessary addition on this account, and possibly on account of additional height to the Bridge, the Revised Plan and Estimate of Rs 16,400 may be passed.

Commr & Colonel RE.
Chief Engineer, CP & W

Fort St George
4th January 1875

To The Financial Depy with Chy 7198 & 1 with two Encls.

P. W. 1874 Dept.

No: 7198A

To

The Secy: to Govt.

Fmn: Dept.

Dated 4th Nov: 1874.

Recd. 17th ditto 1874.

Transferring for the opinion of the Chief Engineer a letter, with plan, relating to the proposed bridge over the Vyadathorai river in Wynaad—

S.O. 4th Nov: 1874. Fmn: Dept. 13th ditto

No 89.

with an order

Malabar Presidents Office

No. 311. Calicut 30th October 1874.

From

A. MacGregor Esqr.

President. Local Fund Board.

Malabar.

To.

The Hon: D. F. Charmichael

Ag Chief Secretary to Government

Rotacamund.

Sir.

Adverting to G.O. no. 1517 dated 9th September 1874, on the subject of an amended plan of bridge proposed to be built over Vadathorai river, I have the honor to forward copy of a letter and a plan in original received from the Special Executive Engineer, Wynaad.

I have the honor to be

Sir

Your most obt servant

A MacGregor

President

KR.

Financial - 1874.
(Local Funds) Dept.

3

From

The President, Local Funds Board
Calcutta

To

The Actg. Chief Secretary
to Government

Dated 30th October 1874.
Rec'd 2nd November -

No. 311.
Enc. two.

No. 2274

Forwarding copy of letter and a plan in original received from the Special Executive Engineer, Wynaad, on the subject of the proposed bridge over Kadathoray River.

Transferred to the Financial Department with opinion of the Chief Engineer -

Colonel R.E.
4th January 1875.
Secretary to Govt.

13 Jany 75 No 55

The estimate amounting to Rs 16,400 is passed and Colonel Kennedy's attention is called to the Chief Engineer's note.

Sol
attention
is called
to the
Board's letter
No. 311
dated
4th of November -

Board of Revenue.
Public Works Deptt. with Plan
Account. Genl

11
6
21-4

Sol. C.E. Chief Engrs Note 10

9/1

Returned for the Records of the Chief Engineer

4th March 1874

Chief Secretary

Govt. of Madras. 1875

Local Funds - Bridges

G. O., 13 May, 1875, No. 55

Nos. 88-90

Recalls Lt. L.P. Ambavant's Estimate for Rs 16,400 for construction of a bridge over the Pydatherry river, Tanjore with remarks