

(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.	1639	Press
~~B.P. No.~~		~~Mis.~~
Dated	10 - 6 -	1955

Not to be folded or roughly handled

16

*Proceedings of the Madras Government, Public Works Department,
10th June 1875.*

Read the following papers:—

No. 240. From Colonel F. J. MOBERLY, R.E., Superintending Engineer, Chingleput, to Lieutenant-Colonel J. MULLINS, R.E., Chief Engineer for Irrigation, dated Guindy, 22nd May 1875, No. 665.

I HAVE the honor to forward an estimate (Rupees 2,460) for repairing Madranticum Tank calingulah, as the amount, with that of past expenditure during the last four years, exceeds a year's revenue.

2. The principal part of the outlay is for securing the apron which has caused a great deal of trouble and anxiety during the last three years. The work is generally built on rock, but this is very unequal in surface, and the stone thrown into the hollows is lifted out by the action of the stream.

3. Mr. Lowry has omitted any provision for its restoration this time. It will cost probably Rupees 3,000 to lay it in mortar; on the other hand, when full, there will be a water cushion of 8 or 9 feet depth; I am only afraid lest the back action of the water may injure the foundation of the body wall, which is now to be repaired. My fear may be groundless.

4. I send up the estimate, therefore, for your consideration. I may say that the waterway is very largely increased by the removal of the head sluice as sanctioned in G. O., No. 895, of 5th April 1875.

5. The items of earthwork, turfing, and clearing jungle are for the bank in general.

No. 566-A.

No. 240-A.

MEMORANDUM.

THE letter of the Superintending Engineer, Chingleput, transmitting an estimate for the repair of the surplus weir of the Madranticum Tank, and for petty repairs to the tank generally, does not give a very clear idea of the circumstances of the overfall; and as no sections of the work have been transmitted only a general description can be afforded. The weir is the dam across the Cleear, and, with the bund to the southwards, forms this fine tank, the full level of which is many feet above the old bed of the river. This bed on which the weir has been built is said to be for the most part rock, and immediately below the weir there was a great mass of loose stone, which by the action of the heavy floods has been scooped out and piled up below.

2. The replacing of this mass of stone would cost, it is said, 3,000 Rupees, and has not been provided for in the estimate. Colonel Moberly is somewhat afraid that, if not replaced, the body wall may be undermined; but he adds his fears may be groundless. In all probability the body or crest wall is not that referred to, but rather the lower retaining wall. It is, of course, quite impracticable for the undersigned without sections of the work and of the ground below it, with exact information of the nature of the rock and subsoil, to aid the Superintending Engineer with an opinion which, to be of any value, must be based on facts. That the action is considerable is evidenced by the removal of the rough stone, and in order that the weir may be safe it is essential that the lower retaining wall should either be founded on rock which will resist that action, or that its foundations on less durable material should be adequately protected. The natural water cushion, 8 or 9 feet deep, is to

Proceedings of the Madras Government, Public Works Department,
10th June 1875.

some extent a protection, but apparently not a full one, because stone has been removed down to that level. All depends, therefore, on the nature of the foundation of the lower retaining wall, and this must not be left to conjecture or in uncertainty.

3. From the fact that underpinning is provided for there has been evidently some undermining; if the material washed away be either indifferent masonry or decomposed rock, the remedy may be simple, and should, in the latter case, include the removal of the soft rock, and the carrying of the masonry down to perfectly sound rock. Except where the space to be filled in by underpinning is very small, ashlar masonry rather than concrete should be the description of work used for this purpose.

4. The work provided for in the estimate is, subject to the above possibly desirable modification, no doubt necessary, and the estimate may therefore be sanctioned, a supplemental estimate being submitted, if necessary, with reference to the foregoing remarks. The revenue particulars are:—

Ayacut area	...	...	...	...	...	...	Acres	1,225
" assessment	...	...	...	...	...	...	Rupees	4,861
Average revenue	...	...	...	...	...	...	"	5,268
Highest	...	...	...	...	...	...	"	6,248
Cost of repairs in the last four years	...	...	...	...	...	...	"	4,670
Amount of present estimate	...	...	...	...	...	...	"	2,460

It has not been stated on what description of work the past expenditure on repairs has been incurred; but it is believed that on the bund very little has had to be spent, and that disturbance of the surface of the waste weir has been the principal cause of expense. This weir has had on several occasions to discharge very severe floods, and that it should have sustained considerable injury is not surprising. Care should, however, be taken to do the repair work in the strongest possible manner; for, apart from maintenance expenses being thereby kept low, the risk of extended damage, leading possibly to a breach, will be avoided.

OOTACAMUND,
29th May 1875.

(Signed) JOHN MULLINS, Lieut.-Colonel, R.E.,
Offg. Chief Engineer, P.W.D.

No. 241.

ORDER THEREON, 10th June 1875, No. 1,639.

IRRIGATION, No. 22.

The following estimate is sanctioned:— Rs. 2,460.

Repairing Madranticum Tank, Chingleput District
The special attention of the Superintending Engineer should be given to the remarks contained in the foregoing Memorandum.

(True Extract.)

Major, R.E.,

Offg. Joint Secretary to Government.

To the Superintending Engineer, Chingleput.
" Chief Engineer for Irrigation.
" Controller of Public Works Accounts.
Etd. S. T. Austin.
3 are Copies

NO. 665

SUPERINTENDING ENGINEER'S OFFICE,
CHINDY, 22nd May 1875.

From

THE SUPERINTENDING ENGINEER,

Chingleput District.

THE Chief Engineer
for Irrigation

Enclosure,
Estimate

Rs 2460

with estimate

Sir,

I have the honor to forward an estimate for repairing Madranticum tank Chingleput as the amount with that of past expenditure during the last 4 years exceeds a year's revenue.

2. The principal part of the outlay is for securing the apron which has caused a great deal of trouble and anxiety during the last 3 years. The work is generally built on rock, but this is very unequal in surface, and the stone thrown into the hollows is lifted out by the action of the stream.

3. Mr. Query has omitted any provision for its restoration this time. It will cost probably Rs. 3000 if laid in mortar on the other hand when full there will be a water cushion of 8 or 9 ft depth.

I am only afraid lest the back action
of the miter may injure the foundation
of the body wall which is now
to be repaired. my fear may be
groundless.

4. I send ^{up} the estimate therefore
for your consideration. I may
say that the miterway is very
largely increased by the removal
of the head stone as sanctioned
in G. O. No 895 of 5 April 1875.

5. The items of earth work, turfing,
& clearing jungle are for the bank
in general.

I have the honor to be
Sir

Your most obedient servant

H. M. S. P. Colonel R. C. C.

Supg. Engrs. Chingput

Irrigation-

7:56 A.

Memorandum.

enclosure 2.

The letter of the Superintending Engineer Chingleput transmitting an estimate for the repair of the surplus weir of the Madranticum Tank and for petty repairs to the tank generally does not give a very clear idea of the circumstances of the overfall, and as no sections of the work have been transmitted only a general description can be afforded. The weir is the dam across the clear and with the bund to the southwards forms this fine tank the full level of which is many feet above the old bed of the river. This bed on which the weir has been built is said to be for the most part rock and immediately below the weir there was a great mass of loose stone which by the action of the heavy floods has been scooped out and piled up below.

The

to Government 25864
29 May 1895

Mr. C. S. 1990

Mr. Chief Engineer
Chingleput Dist.

To the Chief Engineer
for Irrigation

Dated 22 May 1895

No. 665

Enc. 1

Drawings for

sections in relation

for repairing the

Madranticum tank

Calcutta

Mr. C. S. 1990

Received from Mr. C. S. 1990
29 May 1895

MS. A. 11. 1. 1. 1.

2. The replacing of this mass of stone would cost it is said, 3000 Rupees and has not been provided for in the estimate.

Colonel Maiberly is somewhat afraid that if not replaced the body wall may be undermined but he adds his fears may be groundless. In all probability the body or crest wall is not that referred to, but rather the lower retaining wall.

It is of course quite impracticable for the undersigned without sections of the work and of the ground below it, with exact information of the nature of the rock and subsoil, to aid the Superintending Engineer with an opinion which be of any value must be based on facts. That the action is considerable is evidenced by the removal of the rough stone, and in order that the weir may be safe it is essential that the lower retaining

retaining wall should either be founded on rock which will resist that action, or that its foundations on less durable material should be adequately protected. The natural water cushion, 8 or 9 feet deep, is to some extent a protection, but apparently not a full one because stone has been removed down to that level. All depends therefore on the nature of the foundation of the lower retaining wall, and this must not be left to conjecture or uncertainty.

3. From the fact that undermining is provided for there has been evidently some undermining. If the material washed away be either indifferent masonry or decomposed rock, the remedy may be simple, and should in the latter case include

include the removal of the soft rock, and the carrying of the masonry down to perfectly sound rock. Except where the space to be filled in by underpinning is very small, and the masonry rather than concrete should be the description of work used for this purpose.

4. The work provided for in the estimate is, subject to the above, possibly desirable modification, no doubt necessary, and the estimate may therefore be sanctioned, a supplemental estimate being submitted, if necessary, with reference to the foregoing remarks. The revenue particulars are.

Byacut area	acres 1,225
" Assessment	Rupces 4,861
Average revenue	do 5,266
Highest do	do 6,248

Cost of repairs in the last 4 years Rs 4,870.
Amount of present estimate Rs 2,460

It

6th 23rd W

It has not been stated on what description of work the past expenditure on repairs has been incurred, but it is believed that on the band very little has been spent, and that disturbance of the surface of the waste weir has been the principal cause of expense. This weir has had on several occasions to discharge very severe floods, and that it should have sustained considerable injury is not surprising. Care should however be taken to do the repairs in the strongest possible manner, the work being kept apart from ruin, the risk of extended damage leading possibly to a breach, will be avoided.

Not a command
9 May 1875

Chief Engineer
D.O. Mr.

To the Office Secretary Government
S.H.C.

P. W. 1875 Sept.

No: 3744

Fami

The Chief Engr.
D.P. W.

Dated 29 May 1875
Recd. 7 June 1875
E. 2

No: 565 A.

Memorandum on the
estimate submitted
by the Super Engr, Chingleput
for repairing the Madras
Riverbank Calingula.

P. W. No: 1633 16-6-75

P. H. Dept.
Proceedings of the Madras Government
136 Read the following.

From the ^{offg.} Chief Engineer } (N. No: 566 A d/29 May/75
D.P. H. }

G.O. No: 1633 of 16 June 75

The following estimate
is sanctioned.

Repairing Madras Riverbank
Chingleput Dis-
trict. Rupees 2460

The special attention
of the Superintending
Engineer should be
given to the remarks
contained in the
foregoing memorandum

Super Engr Chingleput
of Engr-in-Charge with one Estimate
and 110/10

S.C. Inspd - 22-6-75

N-240

Returned from Govt 7-6-75

3744

Govt. of 1875 Madras.
PUBLIC WORKS.

To:

166
The Engineer
Chingput

Date:

Issued:

Recd.:

F.:

G. O. 16 June 1875 No. 1639

Nos. 240-241

Madraaticum Tank, Chingput.
Estimate of Rs. 2,400 for
repairing the ———
Sanctioned with remarks.