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(3) Initials of the Referencer _____

MADRAS RECORD OFFICE.

Government of Madras.

Public works DEPARTMENT.

G.O. No.	2051	Press
1168, 469		Mis.
Dated	2.8.8	18/2.

Not to be folded or roughly handled

17

*Proceedings of the Madras Government, Public Works Department,
23th August 1872.*

No. 468. Read the following letter from the Superintending Engineer, 4th Division, to the Acting Chief Engineer for Irrigation and Joint Secretary to Government, Public Works Department, dated Madras, 29th July 1872, No. 1,804 :—

I HAVE the honour to submit, for the sanction of Government, seven estimates for repairing damages sustained by the undermentioned tanks in the North Arcot District during the cyclone of May last, their amounts being more than four times the revenue. The Collector has countersigned them as they are, in his opinion, works that should be repaired :—

<i>Vellore Taluq.</i>				RS.
1.	Closing breaches in the Chittary tank bund	...	...	3,050
2.	Do. do. and strengthening the weakest parts of Sin-ganary tank	...	...	1,600
3.	Do. do. in the Cattupootoor tank bund	...	...	1,350
4.	Do. do. and strengthening the weakest parts of Pootoor large tank	...	...	2,087
5.	Do. do. and strengthening do. of Thorapudi tank	...	...	7,400
<i>Arcot Taluq.</i>				
6.	Do. do. in the Mooranum small tank	...	...	150
7.	Emergent repairs to Vellum tank	...	...	1,380

No. 146.

Note by the Acting Chief Engineer for Irrigation.

WITH his letter No. 1,804 of 29th July the Superintending Engineer of the 4th Division submits seven estimates for repairs to tanks in the North Arcot District on account of breaches or injuries occasioned during the cyclone of May last. The estimates are submitted for the sanction of Government because they exceed four times the revenue derived from the tanks.

2. The estimates are submitted in detail, but they are so prepared that it is impossible to check them in any way, and it cannot be ascertained from them what section of bank it is proposed to give the tanks; hardly two consecutive tanks would give the same section. In restoring breached banks irregular pits have sometimes to be filled in, and it is often advisable to give an extra berm to a bank in the portion below the average level of the country; in such cases the provision necessary for the lower section of a bank may be such as not to represent a complete section for the bank to be superimposed; but after provision has been made for the filling in of the irregular hollows and for the formation of a level base for the bund to stand upon, the uniform section to be given to the bank should be discernable from the entries in the estimate.

3. The section to be given to any tank or channel bank should always be stated at the head of an estimate as follows :— top yards broad and yards above high-water mark, slopes to 1; if a tank bank is wider in the centre than at the sides, this fact should be noted, and if the portion of the front slope is unnecessary owing to the provision of a revetment which stands almost vertically,

Proceedings of the Madras Government, Public Works Department
28th August 1872.

it would be well to provide in the body of the estimate for the complete bank and to deduct for the triangular portion of the front slope, which is not required, in a separate item.

4. The widening and raising of earthen banks should be shown separately in the estimates, and if the level of the high-water be given, it is possible from the estimate to discover, when the work has been executed, whether the estimate itself was correctly prepared.

5. The estimates submitted by the Superintending Engineer, 4th Division, should be returned for revision, and attention should be paid to the following observations:—

The estimate provides for extending the barrel of a sluice for a length of 18 feet, a general foundation and side walls are provided, but no covering is provided for the vent of the extended portion of the sluice.

All the new stone for revetments provided in the estimate appears to have been struck out in the Superintending Engineer's Office; these revetments are for the protection of new embankments, it is doubtful whether the latter could safely be left unprotected.

6. It is not clear what is included under the word "Ayacut" at the heads of the estimates; if, as in the South, it represents the whole irrigable area under a tank, it should be explained how, with the Ayacut of 34 Cawnies and an assessment of Rupees 329, it is possible that an increase of revenue of Rupees 251 may be expected from the Cattupootoor tank, if the tank is repaired, when the average revenue of the last five years has been Rupees 329, or equal to the full amount of the assessment.

Explanation is also required relative to the sum of Rupees 150 which, it is stated, is the increase of revenue which may be expected from the Pootoor large tank when the average revenue of five years has been Rupees 338-5-7, the assessment being Rupees 448-10-0 and the Ayacut Cawnies 59-15-12.

The anticipated increase of Rupees 50 in the revenue from the Thorapudi tank should also be explained, as such an increase would raise the revenue above the assessment.

The rates for earthwork in the estimates generally are high; in that for the Thorapudi tank the rate is $2\frac{1}{4}$ Annas per cubic yard; the cause of so high a rate being required should be explained.

Every tak of this estimate appears to provide for a bank of a different section. The tank is said to have yielded an average revenue of Rupees 5 during the last five years, and no increase of revenue appears to be expected though the assessment is Rupees 63. Under the circumstances it would appear to be a matter of doubtful expediency to repair this tank at all at the cost of Government if the tank cannot be repaired under Rupees 150.

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28th August 1872.

The Vellum tank appears to have been repaired at a cost of Rupees 920 only in 1871-72. The cause of the breach should be explained.

Estimate Rupees 1,380.

In putting these tanks in thorough order, as now proposed, care should be taken to provide them with surplus weirs of sufficient capacity. No information relative to the existing weirs is afforded; their extension, if necessary, would be undertaken as minor new works, and hence would not be included in the emergent estimates; but the provision of ample waterway in the weirs should not be lost sight of.

OOTACAMUND,
August 1872.

(Signed) R. F. OAKES, Captain, R.E.,
Acting Chief Engineer for Irrigation.

No. 469.

ORDER THEREON, 28th August 1872, No. 2,051.

IRRIGATION, No. 19.

The attention of the Superintending Engineer of the 4th Division is called to the remarks of the Chief Engineer for Irrigation, with reference to which he will re-submit the estimates for irrigation repairs submitted with his letter No. 1,804 of 29th July, meanwhile carrying out all emergent works necessary, which, it is noted, have already been taken in hand.

2. It would appear from the remarks of the Chief Engineer for Irrigation that the Range Officers and Overseers of the North Arcot District have got into a slovenly way of preparing these estimates, which should be checked, and a systematic method of making them out introduced. The attention of Assistant Engineer Soobroyacharriar will be called specially to this point.

3. And it appears to His Excellency the Governor in Council that, when the Government are appealed to for special sanction of works, they should be informed by what officers the correctness of the papers submitted is guaranteed. The seven estimates in question have been prepared by Taluq Overseers, but it is not stated whether they have been checked on the spot by the Range Officer, or whether the Collector, Sub-Divisional Officer, or Superintending Engineer who countersigned them, have been able to satisfy themselves by actual observation or particular inquiry as to these exceptional cases. It is not expected in all such cases, but is desirable in some; and in paragraph 4 of G. O. No. 1,635 of 6th July, thorough investigation and scrutiny by these officers was insisted on.

(True Extract.)

Colonel, R.E.,
Secretary to Government.

To the Superintending Engineer, 4th Division.
" Acting Chief Engineer for Irrigation.
" Revenue Department.
" Controller of Public Works Accounts.
Exd. S. T. Austin.

N^o 1804 Supergrs Office 4th Division
Madras 29 July 1872.

From

Colonel F. J. Moberly R. E.
Superintending Engineer 4th Div.

To

Captain R. F. Oakes R. E.
Acting Chief Engineer for
Irrigation and Joint Secretary
to Government P. W. D.

Sir

Enclosures
7 Estimates

I have the honor to submit for
the sanction of Government seven estimates
for repairing damages sustained by
the undermentioned tanks in the North
Arcot District during the cyclone of
May last. Their amounts being more
than four times the revenue. The Collector
has countersigned them as they are in
his opinion works that should be
repaired.

Vellou

Yellow Jalug.

1. Closing breaches in the Chittary
Tank bund Rupees - 3050

2 do do and strengthening
the weakest parts of Sagar
nary Tank " 1600

3 do do in the Cattapoodhar
Tank bunds 1350.

4. do do and strengthening the
weakest parts of Pothoor large
Tank " 2087

5 do do and strengthening
do of Thorapady tank " 7400.
Great Jalug.

6 do do in the Moramun small
Tank " 150

7 Emergent repairs to Vellam Tank 1380.

I have the honor to be
Sir

Your Most Obedient Servant
H. Jacoby Col M E
Superdug 11 Dec

24/12/72.
From
The Superdug
4 Dec

To The Acty Chief Eng
for Irrigation
Joint Secy to Govt
dated 29.12.72
Recd 30.12.72

Rs 1800
Submitted for sanction
of Government seven
estimates for repairing
damages sustained to
tanks in the Kotharod
Dt during the cyclone
of May last.
P. No. 4090/72.

146

Note by the Acting Chief Engineer for a long time

Enclosure
1 letter
7 estimates

With no. 1004 of 29th July
the Superintendent Engineer of the 4th Division
submits 7 estimates for repairs to tanks
in the North Arcot District on account
of breaches or injuries occasioned during
the Cyclone of May last. The estimates
are submitted for the sanction of Govern-
ment because they exceed 4 times the
Revenue derived from the tanks.

2. The estimates are submitted in
detail, but they are so prepared, that it
is impossible to check them in any way
and it cannot be ascertained from them
what Section of bank it is proposed
to give the Tanks; hardly two con-
secutive tanks would give the same
section. In restoring breached banks
irregular pits have sometimes to be filled
in and it is often advisable to give an

extra item for a bank in the portion below the average level of the country, in such cases the provision necessary for the lower section of a bank may be such as not to represent a complete section for the bank to be superimposed; but, after provision has been made for the filling in of the irregular hollows & for the formation of a level base for the bank to stand upon, the uniform section to be given to the bank should be discernable from the entries in the estimate.

3. The Section to be given to any tank or channel bank should always be stated at the head of an estimate as follows:— Top yards broad and yards above H.W. mark slopes to 1, if a tank bank is wider in the centre than at the sides this fact should be noted and if the portion of the front slope is unnecessary owing to the provision of a pavement which

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which stands almost vertically it would be well to provide in the body of the estimate for the complete bank and to deduct for the triangular portion of the front slope, which is not required, in a separate item.

4. The widening and raising of earthen banks should be shown separately in the estimates and if the level of the H.W. be given, it is possible from the estimate to discover when the work has been executed whether the estimate itself was correctly prepared.

5. The estimates submitted by the Superintending Engineer to the Provision should be returned for revision and attention should be paid to the following observations.

Shillany Bank
Estimate Rs 3050

The estimate provides for extending the barrel of a sluice for a length of 18 feet: a general foundation and side walls are provided.

2 provided but no covering is provided for
to the Vent of the extended portion of the
and since.

of All the new stone for
perpetuities provided in
the estimate appears to
have been struck out in the Superin-
tending Engineer's office. These perpetuities
are for the protection of new embank-
ments, it is doubtful whether the latter
can safely be left unprotected.

6. It is not clear what is in-
cluded under the word 'Ayacent' at
the heads of the Estimates, if, as in the
South, it represents the whole irrigable
area under a tank, it should be
explained how with the ayacent of
34 Canones and an apesment of
Rs 329 it is possible that an in-
crease of Revenues of Rs 251 may
be expected from the Cattupootor
tank.

Singamary tank
Estimate Rs 1600

128
tank, if the tank is repaired, when
Estimate Rs 1350 the average Revenue of
the last 5 years has been Rs 329 or
equal to the full amount of the apes-
ment.

Explanation is also required re-
lative to the sum of Rs 150 which, it
is stated, is the increase of Revenue
which may be expected from the
Pootton Large tank when the average
Revenue of 5 years has
Estimate Rs 2087 been Rs 338. 5. 7 the

apesment being Rs 148-10-0 and
the Ayacent Canones 59-15-12

The anticipated increase of Rs 50
in the Revenue from the Thorapudi
tank should also be explained as such
an increase would raise
Estimate Rs 7400 the Revenue above the apesment.

The rates for earthwork in the esti-
mates generally are high, in that for the
Thorapudi

Ph.

The Secretary to
Government

Public Works Department
 No 20.51.
 Proceedings of the Madras Government
 Read the following

From The Chief Engineer for Irrigation. 3/4. E. No 146 of 12 Aug 1/12

The attention of the Superintending Engineer of the 4th Div. is called to the remarks of the Chief Engineer for Irrigation with reference to which he will resubmit the Estimates for Irrigation repairs submitted with his letter No 1804 of 29th July; meanwhile carrying out all emergent works necessary which it is noted have already been taken in hand.

It

A. V.

12-8-75-1

P. J. 1872
 The Chief Engineer for Irrigation
 The 2nd Division
 Encl 1/12/12

12/146

Dated 12th Aug 1/12
 Recd 13th Aug 1/12
 Encl 8

State in the
 Estimate for repairing
 damage & expenses
 incurred in the
 fault & cost
 along the Channel
 and 4th Div.
 No 2451 28 Aug 1/12

12/468

It would appear
from the remarks
of the Chief Engineer
for Irrigation that the
Range Officers and
Overseers of the North
West District have
got into a slovenly
way of preparing these
Estimates; which should
be checked and a
systematic method
of making them out
introduced. The attention
of Asst. Engr. Sobroya.
Chavhar will be called
specially to this point.
And it appears to
His Excellency the Governor
in

8
in Council that when
~~informed~~ ^{informed} ~~he~~ ^{he} appealed to for
special sanction of
works, ~~he~~ ^{they} should be
informed ~~that this~~ ^{that this} ~~is~~ ^{is} ~~the~~ ^{the} ~~he~~ ^{he} has for the
correctness of the papers
submitted to him.
The 7 Estimates in
question have been
prepared by Talook
Overseers, but it is
not stated whether
they have been checked
on the spot by the
Range Officer, or
whether the Collector,
sub Divisional Officer,
or Superintending Engr.
who countersigned them,
have been able to
satisfy themselves by
actual

actual observation, or
particular inquiry, as
to these exceptional
cases. It is not
expected in all such
cases, but is desirable
in some; and in para
4 of G. O. No. 1635
of 6th July thorough
investigation and scrutiny
by these Officers
was insisted on.

WMS

12

24/11/72

9 S. Insp. 4 to 7 Insp.
Ch. Insp. for duty
Rev. Dept. S
Control S
Desp. 3/9/72

C/4090

Govt. of 1872 Madras.

PUBLIC WORKS.

To The Superintending Eng^r
The Division

Dated

Recd.

Encl. /

G. O. 28th Aug 1872. No. 2051.

Nos. 4688 469

Rank. Repair orders
in order by the Chief
Eng^r for Migration in
Estimates for repairing
damages ~~caused~~ oc-
casioned to Rank in
the North Arcot Dist.
~~by~~ by the late Cy-
Cline.