

4291
Public Works (189) Department.

G.O., No. 83 / 32

DATED 17th Oct.
1896

28/10/96

[Despatch Abstract.]

Funds. Sanctioning certain transfers of
under Minor Works, Revenue Department.

17/10

T.C.
17/10

Forwarding copy of Proceedings sanctioning a revised estimate of Rs. 6,920 for constructing a — with out-buildings at Chettipett, in Gódávāri Western division.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.

Read—the following papers:—

From J. C. LARMINIE, Esq., M.I.C.E., Superintending Engineer, I Circle, to the Chief Engineer for Irrigation, dated Dowlaishweram, 18th August 1896, No. C./170.

On looking closely into the estimate sanctioned in G.O., No. 237 of 7th March 1896, for the construction of a new rest-house at Chettipett, I am of opinion that it cannot possibly be constructed for the sanctioned amount (Rs. 2,840) for the following reasons:—

(1) I am told that the provision of sand piles was made under your instructions, but I cannot find any written orders to that effect. Anyhow it would not be possible to carry them out for the amount allowed in the estimate, if it would be possible to carry them out at all. The clay, now that the canal water has permeated through it, is most sticky and tenacious and once the wooden bore piles were driven down, it would be almost impossible to take them out again. In any case, all this could not be done for less than Rs. 6 per pile, and as there are 200 piles, the cost would be Rs. 1,200 against Rs. 180 allowed!

(2) Again, a glance at the section of foundations will show you that the concrete as arranged could not be carried out without an arrangement of boxed supports.

(3) For these reasons, I am induced to propose a simpler, and what I am convinced will be a much better, safer and more satisfactory foundation every way, i.e., a level concrete platform right under the entire building resting on a bed of sand; and while revising the foundations, I take advantage of the opportunity to also revise the superstructure, substituting the type of bungalow built on the Buckingham Canal, which is infinitely more preferable every way than the old Gódávári delta type, with only one habitable room.

(4) Again, the stable, as sanctioned, is open to objection being so extremely perishable; the country wood posts supporting a thatched roof, will only last a few years. The revised estimate provides for a light roof, supported on masonry pillars, with brick in mud partition walls at increased cost of Rs. 80.

Early sanction is requested.

From J. C. LARMINIE, Esq., M.I.C.E., Superintending Engineer, I Circle, to the Chief Engineer for Irrigation, dated Waltair, 29th August 1896, No. 1057 G.D.

I have the honour to request that the classification of the work "constructing a rest-house with out-buildings at Chettipett," estimate Rs. 5,700 sanctioned in G.O., No. 237 I., dated the 7th March 1896, may be altered from I. Headworks—(4)

Buildings, to 2. Main Canals and Branches—(11) Buildings, as the rest-house is going to be constructed on the Main Canal.

From J. C. LARMINIE, Esq., M.I.C.E., Superintending Engineer, I Circle, to the Chief Engineer for Irrigation, dated Waltair, 1st September 1896, No. 1098 G.D.

In continuation of my letter No. C./170, dated the 18th ultimo, I have the honour to forward, herewith, revised estimate and plan for constructing rest-house at Chettipett for your approval and sanction.

The estimates now submitted compare with those sanctioned as under:—

		As sanctioned. RS.	As now revised. RS.
Rest-house	...	2,840	3,900
Stable	...	500	480

No. 170 I.

Note by the Chief Engineer for Irrigation.

The Superintending Engineer, I Circle, brings to notice certain technical difficulties in carrying out the work as originally designed, and as the proposals he now makes will result in a more commodious and stable structure, they may be approved.

2. The revised proposals compare with those sanctioned as shown below:—

		As sanctioned. RS.	As proposed. RS.
Rest-house	...	2,840	3,900
Stable	...	500	480
Out-houses	...	1,240	1,240
Total	...	4,580	5,620

(Signed) R. R. E. DRAKE-BROCKMAN, Col., R.E.,
Chief Engineer for Irrigation.

19th Sept. 1896.

ORDER—No. 811 I., dated 8th October 1896.

The following revised estimate is sanctioned in supersession of the estimate of Rs. 5,700 sanctioned in G.O., No. 237 I., dated 7th March 1896:—

Capital Expenditure not charged to Revenue.

49. Irrigation.

Gódávári Delta System.

Western Section.

Open Capital Account.

2. Main Canals and Branches.

11. Buildings.

Unrenerative Work.

Constructing a rest-house with out-buildings at Chettipett.

		RS.
I. Works	...	5,620
II. Establishment	...	1,293
III. Tools and Plant	...	7
Total estimate	...	6,920

No. 811 I., 8th OCTOBER 1896.

2. This sanction is registered as No. 114 I. of 1896-97, and will expire on the 31st March 1898.

3. Ordered that a copy of these Proceedings be forwarded to the Government of India for information.

[Here enter No. 812 I., dated 8th October 1896.]

(True Extract.)

(Signed) W. HUGHES,
Joint Secy. to Government,
Irrigation Branch.

To the Chief Engineer for Irrigation.

„ Superintending Engineer, I Circle, with thirteen enclosures.
„ Examiner, Public Works Accounts.

ENDORSEMENT—No. 812 I., dated 8th October 1896.

Forwarded.

(By order.)

Joint Secretary to Government,
Irrigation Branch.

Public Works (1896) Department.

CURRENT No. 8585

Order

From

*The Chief Engineer
for Irrigation*

No. 1708

Dated 19. 9. 96

Received 24. 9. 96

Enclosures 16 (4 Plans)

Spare copies

Issue

W.H.

ag

B.R.

7/10%

SUBJECT.

*Revised estimate
for constructing Rest-
House at Chethpett*

*o.L. 1440
R 7/10
L.C. 28/9 25/10*

A.C.

UNDER date the

READ the following

From Supp Engr, 1st Class, no $\frac{C}{170}$, of 18. 8-96.

From a. 1057 & 29. 8-96.

From do. 1098 & 1. 9. 96

Nov 70 J. 4. 15. 8. 26

80 Note by Mr. Chief
Eng. for signature

The Supp Engr, 1st Circh, brings to notice certain technical difficulties in carrying out the work as originally designed, & as the proposals he now makes will result in a more commodious & stable structure they may be approved.

2. The revised proposals compare

with those sanctioned
as shown below:-

	As sanctioned Rs.	As proposed Rs.
Rest House	2820	3900
Stable	500	480
Out houses	1240	1240
Total	4580	5620

No. 811 J. of 7th October 1896.
Order thereon

100

7.9.96 1.10.96

The following
revised estimate is
sanctioned in exer-
cution of the estimate
of Rs 5700 sanctioned
in G.O. No. 237. J, of
7th March 1906:-

Capital Expenditure not
charged to R.C.

49. Irrigation.

Godavari Delta System

Western Section

Open Capital Account

2. Main Canals & Branches

11. Buildings.

Unremunerative work.

Constructing a rest
house with outbuildings

at Chetkijett.

No.
I Works . . . 5620
II Establishment . 1293
III Tools & Plant 7
Total Estimate 6920

2. This sanction is
registered as No. 114 J
of 1896-97 & will expire
on the 31st March 1908.

3. Ordered that
a copy of these Procs.
be forwarded to the
Govt of India for
information.

No. 812 J of 8th October 1896
Indorsement

Forwarded

Jth
14/9
96

Ruedb
19/9
96

To The Chief Engr for J.
Supp Engr 12 Cial with
20 J. 52. 13 encls.

Recd
12/9 1896

Public Works (1896) Department.

CURRENT No. 17492

Order

From The Suptg. Engineer
1st Circle

No. 109892

Dated 1st Sept 1896.

Received 5. 9. 96.

Enclosures 3

Spare copies

SUBJECT.

Rest. house at Chettipett
- Submits for sanction
a revised estimate of
Rs 4380 for constructing.

FROM

FIRST CIRCLE

Enclosures. 5. TO

THE CHIEF ENGINEER

FOR IRRIGATION. *Mauro.*

WALTAIR,

18th September-1896.

SIR,

In Continuation of my letter no. $\frac{C}{170}$
dated the 17th ultimo, I have the honor to
forward, herewith revised estimate and
plan for constructing Rest house at Chettipatti
for your approval and sanction.

The Estimates now submitted compare with those sanctioned as under:-

Rest house. As Sanctioned As ^{not} revised
2,840 — 3,900

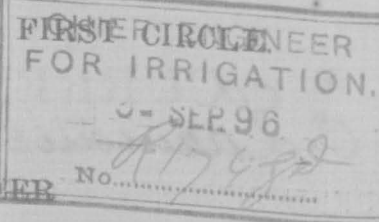
Stahl 500 - 480

I have the honor to be
Sir

Your most obedt. Servant

J. C. Lawrence
Superintending Engineer
Hutchins

FROM J. C. Lammie Esq.
SUPERINTENDING ENGINEER,



TO THE CHIEF ENGINEER

FOR IRRIGATION.

DATED 18th September 1896
DESPATCHED 2nd September 1896
RECEIVED

No. 1098 G.D.

ENCLOSURES. 5.

SUBJECT.

Rest House at Chettipetta -
Submits a revised Estimate of
Rs. 4380/- for constructing -
for approval & sanction.

Public Works (1896) Department.

CURRENT No. 169 G.D.

Order

From The Suptg. Engineer
1st circle.

No. 1057 G.D.

Dated 29th August 1896

Received 2nd Sept 1896.

Enclosures

Spare copies

SUBJECT.

Rest house at Chettipett
Requesting that the classi-
-fication of the work constri-
-tunga - sanctioned in G.O.
No 2373 of 7.3.96 may be
altered from (1) Head Works &
Buildings to (2) Main Canals
& branches (III) buildings.

J. C. Lammie Esquire
SUPERINTENDING ENGINEER,

Enclosures.

TO

THE CHIEF ENGINEER

FOR IRRIGATION. *hyacinths*

WALTAIR, 22nd August 1896.

SIR,

I have the honor to request that the classification of the work constructing a rest house with out buildings at Chettipett Estimate Rs 5700 sanctioned in G.O No. 237 dated the 7th March 1896 may be altered from (1) Head works & Buildings to (2) Main Canals & Branches - (1) Buildings as the rest house is going to be constructed on the main canal

I have the honor to be

Swi

Your most obedt. servt.

J. C. Lawrence
Superintendent Engineer

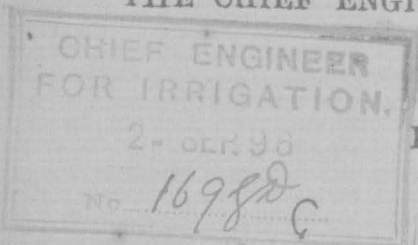
22/8 It is not a circle

27/8

FROM *J. C. Larmine Esq.*
SUPERINTENDING ENGINEER,
FIRST CIRCLE.

TO

THE CHIEF ENGINEER



FOR IRRIGATION.

DATED *29.8.1896*
DESPATCHED *29*
RECEIVED

No. 1057 G.D.

ENCLOSURES. -

SUBJECT.

Rest House at Chettipetta —
Requesting that the classification
of the work constructing — Same-
timed in G.O. No. 2379
7.3.96
be altered from (1) Head works
4 buildings to (2) main canals
and branches (11) buildings.

0658
8585/96

Public Works (1896) Department.

CURRENT No. 160 G.D.

Order

From *The Supdy. Engineer*
1st circle

No. *C*
170

Dated *18.8.96*

Received *24.8.96.*

Enclosures *4*

Spare copies

SUBJECT.

Rest House and stable
at Chettipett — Inform
that the plans and estimates
sanctioned for — require a
revision under the circum-
stances explained within

most sticky and tenacious and once the wooden bue piles were driven down, it would be almost impossible to take them out again. In any case, all this could not be done for less than Rs 6 per pile and as there are 200 piles the cost would be Rs 1200 against Rs 180 allowed!

(2) Again, a glance at the section of foundations will show you that the concrete as arranged could not be carried out without an arrangement of fixed supports.

(3) For these reasons, I am induced to propose a simpler and what I am convinced will be a much better, safer and more satisfactory foundation, everyway; it, a level concrete platform right under the entire building ^{resting} on a bed of sand and while revising the foundations, take advantage of the opportunity to also revise the superstructure, substituting the type of bungalow built at the Buckingham Canal, which is infinitely more

^{n. Bue}
more preferable every way than the old Godavari Delta type, with only one habitable room (4). Again, the stable as sanctioned is open to objection being so extremely perishable, the country wood posts supporting a thatched roof, will only last a few years. The revised estimate provides for a light roof, supported on masonry pillars, with brick in mud partition walls at increased cost of Rs 80.

Early sanction is requested.

I have the honor to be,
Sir,
Your Most Obedt^t Servt.

J. C. Lawrence
Supg Engineer B. G. C.
12/8

This extension of sanction expired on the 31st March 1893.

2. In G.O., No. 869 I., dated 26th October 1892, statements of outlay already, and to be, incurred were called for to admit of an application being submitted for a further extension of sanction. With his letter, No. 1111 K.S., dated 30th July 1893, the Superintending Engineer, II Circle, submitted the statements required, viz. :—

No. I statement showing by sub-heads the sanctioned estimates, the expenditure incurred up to end of 189-93 and the balances of the estimates.

No. II statement showing the items on which expenditure will have to be incurred after 31st March 1893 in completing the delta works. The principal items of this statement have been indicated by an asterisk.

The figures of outlay shown in both statements have been verified and corrected where necessary by the Examiner of Public Works Accounts. The amounts of the estimates entered in statement No. II as submitted by the Superintending Engineer included the sanctions accorded by Government up to end of June 1893, but the statement has been revised in this office so as to include all sanctions up to date. It is recommended that the two abstracts by main and sub heads appended to this note and statement No. II, of which the Superintending Engineer wishes to be furnished with 30 copies, be printed. The great delay in the submission of the statements is attributed by the Superintending Engineer to their bulk and the time required in fair copying and comparing them.

3. The total direct charges to the end of 1892-93 were Rs. 1,00,44,233, leaving Rs. 38,75,551 as the unexpended balance of the sanctioned estimate on 1st April 1893 still to be worked out. Rs. 56,73,820 of the expenditure were spent prior to 1882-83, Rs. 21,40,202 during the period 1882-83 to 1887-88 and the balance Rs. 22,30,211 during 1888-89 to 1892-93. The following are the principal works executed during the last quinquennium :—

Eastern Section—Head Works—The anicut crest was raised by 1 foot of concrete with cast iron grooved posts between which planks can be slipped when required to retain water to the required height after the season for floods. Screw gearing shutters to the Sitanagaram under sluices were provided. Quarters for the Executive and Assistant Engineers at Bezvada were constructed. An office for the Executive Engineer and anicut lascars and lock establishment sheds were also built.

Ryves canal.—One bridge, 6 head sluices, 7 minor sluices, 1 culvert, 2 regulators, 5 distributaries and 2 minor branches were completed.

Ellore canal.—Three outlets, 1 aqueduct, 1 bridge and 5 large distributaries were completed. The canal banks were raised.

Masulipatam canal.—The canal was widened by 13 feet from head to 4 miles 5 furlongs; 2 head sluices and 54 masonry slope drains were constructed.

Bantumilli canal.—Kamalapuram lock, the main distributary, south side channel and one minor channel were completed. The tail lock and lock weir were almost completed. Five head sluices, 2 bridges and 12 minor sluices were also completed. Widening and extension of canal was practically finished.

Bank canal.—The lock and sluice at head of canal were completed. The canal for 13 miles was excavated to full bottom width.

Pulleru canal.—The straight cut, 3 bridges, 4 head sluices, 9 sluices and 3 distributaries were completed.

Pamaru junction canal.—One bridge was constructed.

Polraz canal.—One lock, improvements to 1 head sluice, construction of 5 head sluices, 2 outlets and inlets, 12 minor masonry works, 9 bridges and 7 distributary channels were completed. The canal was widened in the first $7\frac{1}{2}$ miles.

Drains.—The Inampudi, Polraz, Chendrayacodu, Peddakommileru, Pallava and Kanakavalli drains and the Lingala and Vadlamanad affluents were completed. The Lazzabanda drain and Chinnakommileru affluent were widened and the Peddalanka drain was excavated to tentative width.

Western Section—Head Works.—Quarters for the Executive and Assistant Engineers at Duggirala were constructed.

Main canal.—The widening of this canal from 1 to 6 and 9 to 12 miles was in progress.

Bank canal.—One lock weir, 1 rest-house and 2 head sluices were constructed. One channel was extended, the canal was widened and the diversion of the canal at Penumudi was completed.

Commamur canal.—The improvements to canal in 1st to 4th reaches, 1 inlet, 1 surplus sluice, 1 bridge, 12 distributaries, 3 minor masonry works and drainage affluents were completed.

Nizampatam canal.—One bridge and lock establishment quarters at Duggirala were constructed.

Drains.—Iskapalli aqueduct of Bhattiprole drain, Langagunta affluent and 1 bridge were completed. The Tungabhadra drain was widened, and Nallamada and Sakkikalva affluents and the Karenchedu drain were completed. The earthwork improvements to the Romperu drain were almost completed to its junction with Sakkikalva affluent (5 miles 37 chains).

4. After providing for all known requirements, except for the works required for carrying out the extension of irrigation recently approved (*vide* paragraph 6), the

	RS.
Old outlay	30,81,755
Outlay incurred on completed works	31,74,637
Outlay incurred on works in progress	14,35,792
Outlay to be incurred to complete works (statement No. II.)	26,63,553
Reserve for unforeseen works	3,75,257
Total amount sanctioned for works	1,07,30,994

amount available for unforeseen works is, as shown in the distribution given in the margin of the total amount sanctioned for works outlay, Rs. 3,75,257, which represents the unappropriated balance of the sanctioned provision for the extension of the Eastern Bank canal and the Puligedda aqueduct which are not now required, it having been recently decided that it was unnecessary that any further

expenditure should be incurred upon the extension of the Bank canal and the proposed irrigation of 15,000 acres thereby, whilst there is ample area available for irrigation under the Ellore, Ryves and Masulipatam canals.

5. The irrigation under the delta is advancing very rapidly. There was an extension of irrigation from 337,327 acres in 1886-87 to 471,114 acres in 1892-93 and an increase of revenue from Rs. 11,74,582 to Rs. 18,00,680. The financial result during 1892-93 was a net return, after paying interest charges, of 8.87 per cent. on the total capital invested against 7 per cent., the ultimate financial result anticipated.

6 The ultimate area of irrigation as originally contemplated in the project estimates was 475,000 acres, but recent inquiry has shown that it would be unwise to restrict cultivation to that extent. Under the Ellore canal a head sluice and channel for the irrigation of 12,000 acres have already been carried out some years back, but kept closed owing to the restriction placed hitherto upon the extension of irrigation. The Superintending Engineer was there-

* Memo. No. II/27 K S., dated 17th Feb. 1893. fore instructed * to have this sluice opened during the irrigation season and the effects upon the flow and water levels of the Ellore canal carefully gauged and recorded. He was also requested to forward the necessary estimates of the probable cost of putting the Masulipatam and Ryves canal into a condition fit to cope with the increased supply they may be called upon to carry. An estimate, amounting to Rs. 34,200, for widening the former canal was