M.R.O. 1—10,006—28-2-50.

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MADRAS RECORD OFFICE

Government of Madras

Public Works DEPARTMENT

G.O. No. / B.P. ~~—~~ No.	2584	Press / Mis.	874
Dated	11 – 9. –	195	

Not to be folded or roughly handled

Proceedings of the Madras Government, Public Works Department, 11th September 1874.

Read the following papers:—

No. 232. From the Superintending Engineer, Kistna, dated 8th August 1874.

No. 44.

No. 624.

No. 232 A. *Note by the Chief Engineer for Irrigation.*

In G. O. of the 14th June 1869, No. 1,928, an estimate amounting to Rupees 21,360 was sanctioned for the drainage of the Suttanagram swamp in the eastern delta of the Kistna, near Masulipatam, by a channel from the aqueduct on the Masulipatam Canal, where that crosses the swamp, to the tidal creek.

2. The work has made very slow progress, owing partly no doubt to the difficulty of working at a low level in water, but the greater part of the excavation has been made.

3. The Superintending Engineer now reports that supplemental sanction to the amount of Rupees 5,360 is required. By raising the bed at the outfall 1 foot to reduce in some degree the difficulty of excavating down to 4 feet below H.W. level, the total quantity of cutting has been reduced from 212,720 to 194,112, though the side slopes have in parts been made, or are to be made, flatter than the 1½ to 1 originally intended.

4. The cost of the work already done, cubic yards 155,316, has averaged As. 2 P. 1½ a cubic yard, and this appears to be considerably more than was necessary, seeing that nearly all the excavation between the aqueduct and the bridge was above H.W.L., and much of that between the bridge and the tidal creek. It is only necessary to look at the longitudinal section to see that the work has not been well managed, and some of the cutting has been carried much too low. To the proper levels of any part but little attention seems to have been paid, and difficulty was created by having the tail end of the bed considerably above its proper level. Excavations below H.W.L. need to be made under proper arrangements, and it is of importance also that they should be cut rapidly, then by means of temporary bunds with perhaps simple sluices in them water can be kept down and the work can be economically executed. In the dry season the water level can be kept without much difficulty at but little above mean tide level, which is probably 2 feet or nearly so below H.W.L., and then taking out the soil would be easily effected.

5. The supplemental sanction required may be given, but at present there are no funds available, and the balance of the estimate will have to be entered in the Budget of 1875-76. A couple of seasons should have sufficed for completing the work, but neither Major Hasted nor his Assistants are responsible for the delay in acting on the sanction given in 1869.

OOTACAMUND, (Signed) JOHN MULLINS, Lieut.-Colonel, R.E.,
24th August 1874. *Chief Engineer for Irrigation.*

Proceedings of the Madras Government, Public Works Department.
11th September 1874.

No. 233. ORDER THEREON, 11th September 1874, No. 2,581.

IRRIGATION, No. 31.

SUPPLEMENTAL sanction for Rupees 5,360 is given for the Shiragunga drainage channel in the Eastern Delta, Kistna, and the total of the estimate will thus be raised to Rupees 26,720. The Government observe with regret that the work has not been well managed, that it appears to have cost more than was necessary, and that it has been under execution for a very much longer period than should have sufficed.

2. No funds being at present available, the balance of the estimate will be provided for in the Budget of 1875-76.

(True Extract.)

Lieut.-Colonel, R.E.
Joint-Secretary to Government.

To the Superintending Engineer, Kistna
" Chief Engineer for Irrigation.
" Officiating Controller of Public W

Exd. E. C. Shunker.
Spare Copies

No. 44 Superintending Engineers Office
1st Div. Kistna. Masulipatam
8th August 1874.

From Major J. C. Hastedt R.E
Offg Supt. Engr. 1st Div. Kistna

To Lieut. Colonel John Mullins R.E
Chief Engineer for Irrigation

Sir

I have the honor to forward a
cwl volumes
1 Comparative Statement
1 Supt's Enclosing Letter with abstract
† 1 Survey Sketch
comparative statement and sections shewing the work required to complete the Shiragunga a drainage channel.

3
† in a separate cover

2. The original estimate was sanctioned in G.O. No. 1928 of 14th June and provided for cutting a channel 30 & 50 feet wide at bottom with a uniform fall from the floor of the Shiragunga drainage sluice tailing into the Salt creek near the fort 4' below High Water mark. On the 19th September 72, Captain H. Smally brought to the notice of the Supt. Engineer that the estimated rate was quite insufficient and a rate of 2 annas, 6 pies was 'absolutely necessary to get work done', also that the slopes would not stand at 1½ to 1 and that slopes of 3 to 1 were necessary, these alterations

alterations were approved and on my arrival, an officer (Lieut Thomson R.E.) took the work specially in hand and I hoped would complete it in the first season. Floods however stopped the work suddenly and this year I had sections taken to see what was absolutely required. I then found that much of the work done had been silted up again and that in some places the excavations was to the full depth while in others places the longitudinal sections showed great mounds. I examined the accounts and found that ~~all the trenching that had been estimated~~, the channel above Chinaguna sluice could be cut out and the principal mound below reduced to the general level of the bed without exceeding the estimate by more than 5 per cent. I accordingly put the work in hand and then seeing the difficulty of excavating to 4' below H. W. in tidal waters, and that the bed of the creek was actually above this level. I altered the design of the channel to a uniform slope from the sluice floor to 3' below H. W. at the tidal creek. The statement shews the work required to be done to carry out the work thus altered.

3. Having gone thus far I think it advisable to complete the work to the slope I have allowed, although in the soil found it will be a difficult matter. I think that if the work had been put in hand properly at first with a view to leaving each season's work complete as far as it went, and not attempting to excavate to the full depth unless there was a good chance of completing in the season, some expenditure might have been saved - but so long as I have been in the District the work has been carefully looked after and there has been a great difficulty in getting men to undertake it.

I have the honour to be
Sir
Your most obedt Servant

Josh Abel Major R.E.
Offg Supt Engr Pub Wks
Mysore.

No 824

Note by the Chief Engineer for Irrigation

Ref G.O. N° 1/4 2nd June 1869 Vol 19 28

An estimate amounting to Rupees 2,360 was sanctioned for the obtaining of sufficient quantity of the Kuttana grain amounting in the Eastern Delta of the Kistna near Kaza Kotaru by a channel from the Upper Coast on the Mandapalem Canal to the Kolab creek.

2. The work has made very slow progress, mainly owing to the difficulty of working at a low level in water, but the greater part of the excavation has been made.

3. The Superintending Engineer reports that supplementary estimates to the amount of Rupees 5,360 is required - By raising the bed at the mitfalls 1 foot the volume in some degree the difficulty of cutting canal, the total quantity of cutting would be increased 37½ to 194½ lacs of cubic feet - 4 feet below H.W. through the whole length has been adopted as the bed

Ry No 1176.
Ref 44 Rev
From

The Chief Engineer
1st Div Kistna

To The Chief Engineer
for Irrigation
G.O. No 2584-11-9-74-
Dated 8th August 1874
Registered 13th Do.
Received 17th " "
Encs 3.

Forwards with certain explanations, comparative statements & sections the work required to complete the Penagunga drainage channel.

F. W. 5580/74.

No 232

been made, or are to be made, flatter than the 1½ to 1 originally intended.

4. The cost of the work already done, cubic yards 155,316, has averaged 2/2 1/3 a cubic yard, and this appears to be considerably more than was necessary, seeing that nearly all the excavation between the aqueduct and the bridge was above H.W.L., and much of that between the bridge and the tidal creek. It is only necessary to look at the longitudinal section to see that the work has not been well managed, and some of the cutting has been carried much too low. To the proper levels of any part but little attention seems to have been paid, and difficulty was created by having the tail end of the bed considerably above its proper level. Excavations below H.W.L. need to be made under proper arrangements, and it is of importance also that they should be cut rapidly; then by means of temporary bunds with perhaps simple sluices in them, water can be kept down and the work can be economically executed. In the dry season the water level can be kept without much difficulty at but little above mean tide level, which is probably 2 feet or nearly so below H.W.L. and then taking out the soil would be easily effected.

5. The supplemental sanction required may be given, but at present there are no funds available, & the balance of the estimate will have to be entered in the Budget of 1875-76. A couple of seasons should have sufficed for completing the work, but neither Major Hasted nor his Assistants are responsible for the delay in acting on the sanction given in 1869.

Dated Poona 24th August 1874.

Windermere Lt Col RE
Chief Engineer for Irrigation

To
The Secretary to Govt. P.W.D.

P. W. 1874 Depart.
Proceedings of the Madras Government
Read the following
From
The Supg Engr Tinnevelly (Rebels 44 dated
" Chief Engr for Irrign & Sts dated
8th Augt 1874
24th Augt 1874

Public Works Depart.

No. 5580.

To

The Chief Engineer
for Irrigation.

No. 624.

Dated 24th Sept.
Rec'd 4th Sept. 1874.

Encl. 5.

Sir

Notice of the
Agreement for supple-
mental Sanction for
Rs 5,360 on the Sir-
vaigunga drainage
channel in the Tinne-
velly District.

G.O. No 2584-11-9-74.

No 2324

cost more than was
necessary, and that
it has been under
execution for a very
much

P. W. 1874 Depart.
Rec: 9 Sept for Letter
No 5580.

MEMORANDUM.

Requested for reference the under-mentioned papers :—

Letter No 446 of 8 August 1874 from Bo of Revenue
with 3 Enclosures, referred to in G.O. No 2584 of
11 Sept 1874.

+ 3 Encs Supplied

Office of the Chief Engineer
for Irrigation,
10 — 11 — 1874.

Draft Numbering
Lead Clerk

To

The Registrar of the P.W. Secty

for service
Nagapatam drainage
Channel in the E
Delta, Vistna

G.O. No 2584 - 11-9-74

No 232 A

Public Works Departt
Proceedings of the Madras Government
Read the following

From
The Supg Engr Vistna (Abstract dated
x Chief Engr for Irrign &c &c — 8th August 1874)
" dated
" 24th August 1874)

2584

Supplemental
sanction for Rupees
5,360 is given for the
Shivaganga drainage
channel in the Eastern
Delta, Vistna, and the
total of the estimate
will thus be raised
to Rupees 26,720. The
Government observe
with regret that the
work has not been
well managed, that
it appears to have
cost more than was
necessary, and that
it has been under
execution for a very
much

x without date

much longer period than should have sufficed.

2. No funds being at present available the balance of the estimate will be provided for in the Budget of 1875-76.

Wy. 27/8/74

Govr.

Bdsr.

To The S.E. Victoria
—·— Chf Engr for Info
—·— Controller Wks Accts with Estimate
S. Capris desd 21/9/74.

232-233

Rec 20/9/74 Ans 1/9/74

5580 L

Calcutta Public Works.

To

The Secy. to Govt.
Madras

Dated 1

Rec'd. Dated 4

G. O. 11 Sept. No. 2584

No. 232-233

Shivaganga drainage
Channel in the Eastern
Delta Godavari Dt.

Supplemental sanction
for Rs. 5,360 given for
the work, with certain
remarks upon the
balance of the Estimate
to be provided for in
the Budget of 1875/76