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MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

G.O. No. 2142	Press Mis.
468-469	
Dated 27-7-1864.	

Not to be folded or roughly handled

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*Proceedings of the Madras Government, Public Works Department,
27th July 1864.*

No. 463. Read the following letter from Lieutenant-Colonel O. W. S. CHAMBERS, R. E.,
Superintending Engineer, 1st Division, to Colonel C. A. ORR, R. E., Secretary to
Government, Public Works Department, dated Waltair, 18th January 1864, No. 2,089 :—

SIR,

1. In obedience to the Order of Government as per
margin,* I do myself the honor of submitting an Estimate for
Rupees 66,132, in lieu of that for Rupees 78,070 returned to
me for revision.

2. The revised Estimate 11,119 Rupees or same sum approximating to that amount, will
be submitted shortly when the final expenditure on the Ellore aqueduct has been ascertained.

No. 469.

ORDER THEREON, 27th July 1864, No. 2,142.

Ordered that the following letter be despatched :—

(Here enter 27th July 1864, No. 2,143.)

(True Extract.)

(Signed) J. H. M. SHAW STEWART, Major, R. E.,
Deputy Secretary to Government.

Exd. S. T. Augustin.

*on the Ellore aqueduct has been
ascertained*

PUBLIC WORKS DEPARTMENT.
Irrigation.
FORT SAINT GEORGE,
27th July 1864.

No. 470. No. 2,143.

From

MAJOR J. H. M. SHAW STEWART, R. E.,
Deputy Secretary to the Government of Fort Saint George, P.W.D.,
The Secretary to the Government of India.

To

SIR,

1. I am desired by His Excellency the Governor in Council
• 25th September 1863, No. 1,241. • to forward herewith a letter* from the Superintending Engineer,
1st Division, submitting a Supplemental Estimate of Rs. 66,132
for completing 36 miles of the Ellore High Level Canal from Dendalore to Nundamoor in the
Godavery District. Colonel Chambers also reports on the works which have been carried out,
and those which remain to be executed to complete the communication within the limits of that
District.

2. The following Statement exhibits the amounts of the sanctioned Estimates for each
section of the Canal, the expenditure up to 30th April 1864, and the sums required to complete
the same :—

	Length in miles.	SANCTIONED ESTIMATES.			ACTUAL COST.			Excess over original and supplemental Estimates.
		Original.	Supple- mental.	Total.	Already expended.	Work to be done.	Total.	
		RS.	RS.	RS.	RS.	RS.	RS.	RS.
From Dendalore to Nundamoor.	36	2,87,614	30,426	3,18,070	3,19,537	66,132	3,85,669	67,599
Perikeed to Dendalore ...	16	1,34,835	64,836	1,99,671	• 1,95,873	55,329	2,55,000	55,329

* Balance of Estimate granted in 1864-65, G. O. 4th July 1864, No. 1,941.

3. The Supplemental Estimate now submitted is for the former section, which was commenced in 1854, and after an outlay of upwards of two lacs of Rupees was stopped in 1857, in consequence of the restrictions then placed on expenditure. On the resumption of the work, it was found that the increase which had taken place in the rates for materials and labour since its commencement, the badness of the soil which necessitated heavier embankments than the Estimate provided for, and the difficulty of laying the foundations of the aqueduct in the treacherous bed of the Yerra Kalva, had all contributed to render the amount originally sanctioned quite inadequate. The Supplemental Estimates already sanctioned, amounting in the aggregate to Rupees 30,426, as shown in the Statement given above, were intended to provide for the construction of additional escapes urgently required, as well as for the strengthening of culverts which had been injured during unusually heavy floods in 1861-62.

4. The works provided for in the Estimate now transmitted are enumerated in paragraph 16 of the Superintending Engineer's letter. Their object is to protect this section of the Canal against the local drainage, and to supply it with irrigation ducts and sluices. These works are considered indispensable for the irrigation of the 77,000 Acres of land which it was originally contemplated to water. Even in its unfinished state the Canal has proved valuable

on the above aqueduct has been
ascertained

both to the Government and the public. During the year 1862-63, 3,472 boats are said to have passed over the aqueduct, carrying produce valued at upwards of six lacs of Rupees; and in the months of July and August 1863, the following is the amount of traffic reported:—

July.—Boats and Rafts valued at	...	Rupees	3,52,038
August.—Do. do.	...	"	2,38,079

5. Under these circumstances, I am to request that sanction may be accorded to the Supplemental Estimate of Rupees 66,132 in view to its entry in the ensuing Budget.

6. The other section of the Canal, reported on by the Superintending Engineer, is that from Perikeed to Dendalore. As explained by Colonel Chambers, the sanctioned alterations in the original design of the work have already necessitated Supplemental Estimates to the amount of Rupees 64,836; and it is now reported that an additional sum of Rupees 55,329 will probably be necessary to complete the works in this section. The necessary Estimates are not all ready, but they will be forwarded for sanction as soon as received. Of the additional outlay a sum of Rupees 44,210 is required for under-tunnels and escapes for cross drainage; and the remainder to meet the excess expenditure on the Ellore Lock. The construction of this latter work was proceeded with by the Executive Officer of the Range without regard to the sanctioned Estimate, and severe notice was taken of this when the irregularity was brought to notice. The Lock is, however, stated to be the "handsomest in the two Deltas." Notwithstanding the incomplete state of the second section of the Canal, the traffic in July and August 1863 is reported to have been as follows:—

July.—176 boats value of goods	...	Rupees	2,09,176
August.—286 do. do.	...	"	51,647

I have the honor to be,
Sir,

Your most obedient servant,

(Signed) J. H. M. SHAW STEWART, Major, R. E.,
Deputy Secretary to Government.

Exd. S. T. Augustin.

Superintending Engineer

Office, 1st Div. Caltan,

18th January 1864.

N^o 2089.

From

Lieut. Col. Chambers R.E.

Superintending Engineer

To

Colonel C. A. Orr R.E.

Secretary to Government

Madras.

Sir,

18th Nov^r 1863.
N^o 3366.

In obedience to the Order of Government as per margin, I do myself the honor of submitting an Estimate for Rs 66,132 in lieu of that for Rs 78,070, returned to me for revision.

2. The revised Estimate 11,119 Rs. or some sum approximating to that amount, will be submitted shortly when the final expenditure on the Ellore aqueduct has been ascertained.

... ..

* 25 September 68 - 1241

the Superintending Engineer,
 1st Division, submitting
 a supplemental estimate
 of Rupees 66,132 for com-
 pleting 36 miles of the
 Ellore High Level Canal
 from Dendaloor to Nun-
 damoor in the Godavari
 District. Colonel Chambers
 also reports on the works
 which have been carried
 out, and those which re-
 main to be executed to com-
 plete the communication
 within the limits of that
 District.
 2. The following state-
 ment exhibits the amounts
 of

of the sanctioned estimate
 for each section of the
 Canal, the expenditure up
 to 30th April 1864, and the
 sums required to complete
 the same.

	Length in miles	Sanctioned Estimate			Actual cost			Excess over original & supplemental estimate
		Original	Suppl	Total	already expended	to be done	Total	
From Dendaloor to Nun- damoor —————	36	28,764	30,426	59,190	57,537	66,132	38,669	67,699
Perched to Dendaloor.	16	13,835	6,836	20,671	19,587	5,329	25,000	55,329
* Balance of ests granted in 1864/65. P.O. 4 July 1864-1941-								

The supplemental
 estimate now submitted
 is for the former section,
 which was commenced
 in 1854, and a further an-
 outlay of upwards of 2
 lacs of Rs. was stopped
 in

In 1857, in consequence
of the restrictions then
placed on expenditure.

On the resumption of the
work, ~~it was~~ it was found

that the increase which
had taken place in the

rates for materials and
labor since its commence-

ment, - the badness of the
soil which necessitated

heavier embankments

than the estimate provided

for, and the difficulty of
laying the foundations

of the Aqueduct in the
treacherous bed of the
Yarra

Yarra. Mr. ¹¹ had all
contributed to render the
amount originally sanc-
tioned quite inadequate.
The supplemental estimates
already sanctioned, amount-
ing in the aggregate to
£30,426, as shown in
the Statement given above,
were intended to provide
for the construction of
additional escapes in-
geniously required, as well
as for the strengthening
of culverts which had
been injured during the
floods of 1866/67.
The work provided
for in the Estimate now
submitted

transmitted are enumerated
in para 16 of the Inspector's
letter. Their objects
to protect the portion
of the Canal against
the local drainage, and
to supply it with irrigation
water. These
are the considered
indispensable for the
irrigation of the 77,000
Acres of land which it
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Canal has proved valuable
both to the Govt. and the
public.

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year 1862/63, 3472 boats
are said to have passed
over the Aqueduct, car-
rying produce valued
at upwards of 6 lacs
of Rs.; and in the
months of July and
August 1863, the follow-
ing is the amount of
traffic reported.

July. Boats & cargo valued at Rs.	352,038
August. " " " " " "	238,077.

Under these cir-
cumstances I am to re-
quest that sanction may
be accorded to the sup-
plemental estimate
of Rs. 66,132. in view
to its entry in the en-
suing Budget.

G. The other section
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and it is now reported that
an additional sum of
Rs 55,329 will probably
be necessary to complete
the work in this section.

The necessary estimates
are not all ready, but they
will be forwarded for sanc-
tion as soon as received.
Of the additional outlay
a sum of Rs 44,210 is
required for under tunnel
and escapes for cross
drainage; and the re-
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excess expenditure on the
Ellor Lock. The con-
struction of this latter
work was proceeded with
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 is however stated to be the
 "handsomest in the two
 Delta". Notwithstanding
 the incomplete state of
 the second section of the
 Canal, the traffic in
 July and August 1863
 is reported to have been
 as follows:

July. 176 boats - value of goods. Rs. 209,176.
 August. 286. 50 - - - - - 51,647.

Shepherd
 27th July/64

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 Decr. 28th July into 15 Encl.

one the table of survey
 7 fine masonry plans
 one specification
 one letter to the
 one letter to the
 date 23rd Sept/63 without
 the new plans there on

17/10/64

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To V 1864 Dep't
Pro. of Govt. for July

£ 24 2 24 2

To No. of the M'gao?
D/27 July/64

Letter from the
Sup^r Engineer 1st D^r submitting
a revised Supplemental
Estimate of Rs 66,132 for
completing 36 miles of the Elbow
High Level Canal from
Dendaloe to Nandunoor in
the Gorakhpur District.

No 468 @ 470