

(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. 2477	Press
596 595	~~Mis.~~
Dated 25 — 8 — 1885.	

Not to be folded or roughly handled

Proceedings of the Madras Government, Public Works Department,
25th August 1865.

No. 594. Read the following letter from Captain J. MULLINS, R. E., Consulting Engineer for Irrigation and Canal Company, to Colonel C. A. ORR, R. E., Secretary to Government, Department of Public Works, dated Madras, 1st August 1865, No. 63 :—

1 Letter in original with its accompaniments from the Agent, No. 204, dated 28th July 1865.
1 Estimate.

	RS.	A.	P.
	1,12,324	0	5
* Contingencies ...	3,535	6	0
Total ...	1,15,859	6	5

SIR,

1. With reference to the Order of Government No. 1,654 of the 15th June last, I have the honor to re-submit the revised Estimate* therein referred to, together with a letter No. 465A of the 21st ultimo, from the Provisional Chief Engineer.

2. Mr. Latham states that he considers the average rate, 12 Annas, entered in this estimate to be "fair and just a liberal rate for the whole work without any reference to the extravagance of the Contractor, but taking into account the fact that he worked the cutting from the top downwards, and not with a face.

3. The Chief Engineer also mentions that the work has been re-examined, and re-measured, and at the close of paragraph 10 he states that he sees no reason to be dissatisfied with Mr. Dodson's measurements and rate, which are those of the revised estimate.

Mr. Dodson's measurements are—

Small cutting	...	...	...	Cubic yards	20,000
Large do.	...	...	...	"	1,27,000
					1,47,000

Mr. Armstrong's measurements are shown in the same paragraph to be—

Small cutting	...	...	...	Cubic yards	19,831
Large do.	...	...	...	"	1,21,673
					1,41,504

Being 5,496 cubic yards less than the quantity entered in the estimate; but it is mentioned that the state of the ground may account for this difference, which is 3.7 per cent. on the larger, and 3.9 per cent. nearly on the smaller quantity.

4. The estimated cost of completing the work remaining to be done in these cuttings is shown in paragraph 12 to be Rupees 38,459-10-8, and Mr. Latham proposes to deduct this sum from Rupees 1,12,324-0-5, the amount of the Estimate, and to pay the Contractor nine-tenths of the difference, or Rupees 66,477-14-9, for the work already executed, by which arrangement Rupees 45,845-15-8 will be kept available for the completion of the work. It appears not to have been actually decided to take the completion of the cuttings out of the Contractor's hands, though there is an indication that the remainder of the work may be done by the Company's own Agents; and it is stated that, whatever the cost may be, it is intended to pay the Contractor the amount of the Estimate, Rupees 1,12,324, less the actual cost to the Company of completion. In other words, if the Contractor is allowed to finish the cuts, he will be paid the full amount of the Estimate, if not, the less the completion costs, the more the Contractor will be paid for the work he has done.

5. It will be observed from the quotation given in paragraph 2 above, that in one important respect the Contractor's want of experience in such work has been taken into account in fixing the rate. Of course it would be impossible to say what proportion of the rate is due to this allowance, for the rate itself is an average for work of different degrees of difficulty, the quantities of each sort of which have only been very roughly approximated to for the part of the work already done. Under present circumstances I will not make any further comments either upon the average rate, or upon those entered in paragraph 12 of Mr. Latham's letter for the completion of the cuts, but I think it is of much importance that the work should be taken out of the Contractor's hands, and carried on under competent superintendence, and in such a manner as will ensure due economy, and that any payment to the Contractor in addition to the sum, Rupees 66,477-14-9, referred to in the preceding paragraph should depend upon the ascertained cost of the work to be done. Should these, Rupees 38,459, be found just sufficient for this purpose, the Contractor should be deemed entitled to receive the one-tenth or Rupees 7,386-7-0 retained for security, but if the work be done for considerably less the whole or a proportionate part of this sum should be withheld, for I cannot understand upon what principle he should be deemed entitled to the balance of the estimate, should it be found that the work might have been done more economically, and that therefore he has already been paid too much.

Total of Estimate including contingencies ...	RS.	A.	P.
Amount included in Estimate of 2nd Section Main Canal, sanctioned in Proceedings Madras Government No. 321, dated 4th February 1865 ...	1,15,859	6	5
Difference requiring sanction	71,921	6	5
	43,938	0	0

6. With these remarks I beg to recommend that the estimate be sanctioned, the supplemental amount being Rupees 43,938.

No. 595. ORDER THEREON, 25th August 1865, No. 2,477,

CIVIL WORKS, No. 84.

1. The papers above recorded have reference to a second supplementary estimate of Rupees 43,938 for the 20th mile of the Madras Irrigation Company's Canal. The original estimate for this work amounted to Rupees 43,661, the first revised estimate to Rupees 71,921, and that now submitted to Rupees 1,15,859.

2. These increases are explained to be owing chiefly to the rate for the excavation of the deep cutting having been raised from 5½ Annas per cubic yard to 8, and finally to 12 Annas. The quantities have also been increased, those upon which the two former estimates were calculated being represented by Mr. Dodson, the Executive Engineer, to be far below the actual contents of the cuttings.

3. In Proceedings No. 1,654, dated 15th June 1865, the Government, after noticing the explanation afforded of the causes of excess, resolved on withholding sanction to the supplementary estimate, if the work was to continue in the hands of the Contractor, who had given proof of his utter unfitness to fulfil his engagements. They concurred with the Consulting Engineer in considering it expedient to induce

the Contractor to relinquish those engagements, to have the work already executed by him measured and paid for at liberal rates, and to complete the cuttings under the superintendence of the Company's Engineers.

4. Captain Mullins now re-submits the last revised estimate, together with a letter of explanations from the Provisional Chief Engineer. Mr. Latham does not definitely state whether the completion of the work is to remain in the Contractor's hands. It is presumed that this is not intended, and the Government expect that if there be no good reasons to the contrary, arrangements for relieving him from his engagements will be immediately made. As to the mode in which his accounts are to be adjusted, it is observed that the expense of completing the work is estimated at Rupees 38,459-10-8, which the Company's Officers propose to deduct from

* Estimate ...	RS.
Contingencies ...	1,15,859
	3,535
	1,12,324

the amount of the estimate* (minus contingencies), and to allow the Contractor nine-tenths of the difference, or Rupees 66,477-14-9, for work performed by him. This arrangement will leave Rupees 45,845-15-8 to complete the cuttings,

inclusive of a margin of Rupees 7,386-7-0 to provide for any necessary excess. Mr. Latham, however, adds that the principle upon which he proposes to settle the Contractor's claims, is by paying him the amount of estimate less the actual cost of completion. The Government approve of this as a fair and equitable arrangement, and in now according sanction to the last supplementary estimate of Rupees 43,938, they request that the mode of adjustment recommended by Mr. Latham be adopted.

(True Extract.)

(Signed) CHARLES A. ORR, Colonel, R. E.,
Secretary to Government.

To the Consulting Engineer Irrigation and Canal Company, with two Enclosures.
" Manager for do. do.

Exd. S. T. Augustin.

Enclosures

1. Letter in orig. with its accompaniments from the Agent N^o 204 of 28th July 1865.
1. Estimate
- 2.

N^o 63

Consulting Engineer's Office,
Irrigation and Canal Co.
Madras 1st August 1865

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From

Captain John Mullins R.E.

Consulting Engineer for Irrigation &c. Co.
To The Secretary to Government
Department of Public Works.

Sir,

x Rs: 112,324-4-5.
Contingencies 3,535-6-4.
Total 115,859-6-5.

With reference to the order of Government N^o 1654 of the 15th June last - I have the honor to resubmit the revised Estimate therein referred to, together with a letter N^o 465-A of the 21st ultimo from the Provisional Chief Engineer.

2. Mr. Catham states that he considers the average rate, 12 annas, entered in this Estimate to be "fair and just a liberal rate for the whole work - without any reference to the extravagance of the Contractor, but taking into account the fact that he worked the cutting from the top downwards, and not with a face.

3. The Chief Engineer also mentions that the work has been examined and remeasured, and at the close of para 10 he states that he sees no reason to be dissatisfied with Mr. Hodson's measurements and rate, which are those of the revised estimate.

Mr. Hodson's measurements are: -

Small Cutting	Yards	20,000
Large	do	127,000
		1,47,000

Mr. Armetron's Measurements are shown in the same para to be:-

Small Cutting Cuts 19,831
Large " " 121,673
141,504

being 5496 Cubic yards less than the quantity entered in the estimate, but it is mentioned that the state of the ground may account for this difference, which is 3.7 per cent on the larger, and 3.9 per cent nearly on the smaller quantity.

4. The estimated cost of completing the work remaining to be done in these cuttings is shown in para 12, to be Rupees 38,459-10-8, and Mr. Catham proposes to deduct this sum from Rupees 112,324-5, the amount of the estimate, and to pay the Contractor 9/10 of the difference, or Rupees 66,477-14-9, for the work already executed, by which arrangement Rupees 45,845-15-8 will be kept available for the completion of the work. It appears not to have been actually decided to take the completion of the cuttings out of the Contractor's hands, though there is an indication that the remainder of the work may be done by the Company's own Agents; and it is stated that, whatever the cost may be, it is intended to pay the Contractor the amount of the estimate Rupees 112,324 less the actual cost to the Company of completion. In other words if the contractor is allowed to finish the cuts, he will be paid the full amount of the estimate,

estimate, if not, the less the completion costs, the more the contractor will be paid for the work he has done.

5. It will be observed from the quotation given in para 2 above that in one important respect the Contractor's want of experience in such work has been taken into account in fixing the rate. Of course it would be impossible to say what proportion of the rate is due to this allowance, for the rate itself is an average for work of different degrees of difficulty, the quantities of each sort of which have only been very roughly approximated to for the part of the work already done. Under present circumstances I will not make any further comments either upon the average rate, or upon those entered in para 12 of Mr. Catham's letter for the completion of the cuts, but I think it is of much importance that the work should be taken out of the Contractor's hands, and carried on under competent superintendence and in such a manner as will ensure due economy, and that any payment to the Contractor in addition to the sum Rupees 66,477-14-9 referred to in the preceding para should depend upon the ascertained cost of the work to be done. Should these Rupees 38,459 be found just sufficient for this purpose, the Contractor should be deemed entitled to receive the

See para 4 of letter N: 10
20 May in P.M. G. of 15
June 17: 1654

the 1/10 or Rupees 7386-7-0 retained for security, but if the work be done for considerably less the whole or a proportionate part of this sum should be withheld, for I cannot understand upon what principle he should be deemed entitled to the balance of the estimate, should it be found that the work might have been done more economically, and that therefore he has already been paid too much.

6. With these remarks I beg to recommend that the estimate be sanctioned the supplemental amount being Rupees 43,938.

I have the honor to be
Sir
Yours Most Obedt^t Servant
Wm. Cunningham Esq. Capt. R.
C. Eng. for I. & C. Co.

Total of estimate including Contingencies Rs 115,859-6-5
Amount included in Estimate of 2^d Section Main Canal sanctioned in P.M. G. No 32481
4-12-1865 - Rs 71,921-6-5
Difference Rs 43,938-0-0
Sanctioned

Copy in Mr. Cunningham's file
26-12-1865
J. P. Cunningham Esq. Capt. R. C. Eng. for I. & C. Co.

Sanctioned for sanction with reference to the Rs. 43,938 of 1864, 15 June 1865
Estimate for the 20 mile of the Mudday Deegan with a letter from the Provisional Chief Engineer I. & C. Co.
1864 17-25-1865

Dated 1st Dec 22
J. P. Cunningham Esq. Capt. R. C. Eng. for I. & C. Co.

The Secretary to Govt. I. & C. Co.

1865 17-25-1865
J. P. Cunningham Esq. Capt. R. C. Eng. for I. & C. Co.

Public Works Dept
No 2477

Proceedings of the Madras Government
Under date 1st 25th August 1865
Read the following

From the Consulting Engineer
I. & C. Co.

Submits for sanction with reference to the Proc^g of Govt. No 1654 dated 15th June 1865 revised (Forwarded 1st August 1865 No 63)
Estimate for the 20 mile of the Mudday Deegan together with a letter from the Provisional Chief Engineer I. & C. Co.

I don't think the proposal fair as regards the contractor who had to commence the work at 1/3 of the regular price & cut a narrow opening through a hard rock to the full depth. The present people being anxious to get the work done as soon as possible or as early as the company for trying the benefit of all the previous & most difficult part of the work provided thus and to be paid the full price

The papers above recorded have reference to a second supplementary estimate of Rs 43,938 for the 20 mile of the Madras Irrigation Company's Canal. The original estimate for this work amounted to Rs 43,661, the first revised estimate to Rs 71,921 & that now submitted to Rs 115,859.

These increases are explained to be owing chiefly to the rate for the excavation of the deep cutting having been raised from 5 1/3 Annas & Canna Yard to 8, & finally to 12 Annas. The quantities have

Mr. Latham place
revenue & local charges
W. W. W.

also been increased, those upon which the two former estimates were calculated being represented by Mr Dodson, the Ex. Engineer, to be far below the actual contents of the cuttings.

On Dec. 16th of 1856, the Government, after noticing the explanation afforded for the cause of error, resolved on withholding sanction to the supplementary estimate, if the work was to continue in the hands of the Contractor, who had given proof of his utter inability to fulfil his engagements. They concurred with the Consulting Engineer in considering it expedient to induce the Contractor to relinquish those engagements, to have the work already executed by him measured & paid for at liberal rates; & to complete the cuttings under the superintendence of the Company's Engineers.

Capt. Kimbles now re-submits the ^{last} revised estimate together with a letter of explanation.

Estimate Rs 115,859
Contingencies - 3,536
112,323

WJ

from the Provisional Chief Engineer Mr Latham does not definitely state whether the completion of the work is to remain in the Contractor's hands. It is presumed that this is not intended, and the Government expect that if there be no good reasons to the contrary, arrangements for relieving him from his engagements will be immediately made. As to the mode in which his accounts are to be adjusted, it is agreed that the expense of completing the work is estimated at Rs 38,459-10, which the Company's Officers propose to deduct from the amount of the estimate (minus contingencies) & to allow the Contractor ^{the} of the difference, or Rs 66,477-16-4 for work performed by him. The arrangement will leave Rs 46,865 to complete the cuttings, including a margin of Rs 7386-7-0 to provide for any necessary expenses. Mr Latham, however, adds that the principle upon which he proposes

to settle the Contractor's claims, is
by paying him the amount of
estimate less the actual cost of
completion. The Government approval
of this as a fair & equitable ar-
rangement, and in now ac-
cording sanction to the last
supplementary estimate of Rs 68,938,
they request that the mode of
adjustment recommended by Mr.
Latham be adopted.

W.B.

18
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The Engineer S.C.C. Works & Industries
Manager to S.C.C.

Recd 28th August.

Copy in a letter to England
26: Sept. 60 of 1865.

14
F. of 1865 Depart
Pro: of Govt for Aug 6

Nº 2477

Pro: of the W. 1000
of 25 Aug 65

Instructioning the revised
estimate amounting to Rs
43,938 for the 20 miles of
the Madras Irrigation Canals
- Jan's Canal.

Nº 544. 595

18: August 1865. P. 2105