(1) Number of [illegible] ——

(2) Date of [illegible] ——

(3) Initials of [illegible] ——

MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

G.O. No. 3300 & 3301 Press Mis.-

381-382-

Dated 16-10- 1866.

Not to be folded or roughly handled

No. 381. Read the following letter from the Superintending Engineer, 7th Division, to the Secretary to Government, Department Public Works, dated Camp, Coonoor, 1st October 1866, No. 132:—

1 Survey.
1 Estimate.
1 Estimate, Appendix.

1. In forwarding the estimate of Rupees 1,60,000 for the new Coonoor Ghaut, sanctioned in G. O No. 2,735 of 16th September 1865, I reported my opinion that its quantities were under-estimated and its rates overcharged. I recorded also Major Farewell's anticipation of a higher total of estimate; the bridges and drains were also stated in my letter, with one exception, to be very insignificant, but that the nature of the ground was such as to preclude exact measurements and estimates of them. In G. O. No. 3,573, of 24th November 1865, I recorded Memoranda by Major Farewell and myself of an extraordinary storm which occurred on the 23rd October, and a letter of Major Farewell's endorsed by me on the 15th December contains notes of an excessive flood which occurred on the 5th of that month.

2. From paragraph 3 of the Despatch from the Right Honorable the Secretary of State for India, quoted in G. O. No. 2,942, of 14th September 1866, I gather that Government had anticipated from the records above quoted that a supplemental estimate would be required for completing the new Coonoor Ghaut. I have now the honor to submit such an estimate, amounting to Rupees 80,000, or 50 per cent. additional to the original. Of this amount one-half may be considered as due to original under-estimating of quantities, and the other half as due to additional waterway shown to be necessary by the excessive floods. I believe that the total amount of Rupees 2,40,000, or a rate of Rupees 15,000 a mile for sixteen miles of new ghaut, will not be deemed excessive by any competent person who will take the trouble to examine the work already completed.

3. Out of the original sanction of Rupees 1,60,000, the expenditure up to 30th April 1866 and this year's allotment of Rupees 30,000 would leave Rupees 29,178 available on 31st March 1867, but of this year's allotment all but Rupees 3,000 have been expended by this date, and if additional funds are not forthcoming work will have to be suspended during the last five months of the year. It is, therefore, as a matter of great emergency that I now advocate the grant of Rupees 20,000 more for pushing forward the work of this important communication. Every year that its opening is delayed adds heavily to the expense of the conveyance of all Government stores, and of some of the most important materials for our Public Works; and I have also no hesitation in saying that the hand-to-mouth manner in which funds have hitherto been inadequately supplied has tended to anything but to economy of their outlay. On the same grounds, therefore, that I advocate the raising of this year 's allotment from Rupees 30,000 to Rupees 50,000 out of any general savings that may hereafter accumulate, I urge an allotment in next year's Budget of not less than Rupees 60,000.

4. I also take this opportunity of recommending that a maintenance allowance of two Annas per running yard, or Rupees 3,520 for sixteen miles of new ghaut,

be entered in future Budgets for its ordinary repairs. And I also take the liberty of calling attention to my letter No. 103, of 27th July 1866, in which I have pointed out that the small detachment of Sappers who were to have been kept on the ghaut as long as their services could be made good use of, has been withdrawn and is not yet re-placed, apparently from some misunderstanding on the part of the Quarter Master General of the Army.

No. 382. ORDER THEREON, 16th October 1866, No. 3,300.

CIVIL WORKS, No. 74.

1. An estimate of Rupees 1,60,000 for the Coonoor Ghaut was submitted by the Superintending Engineer of the 7th Division and sanctioned by Government in Proceedings No. 2,735, dated 16th September 1865. With the letter above read Colonel Walker submits a revised estimate, exhibiting an excess of Rs. 80,000 or 50 per cent. upon the former estimate, and he attributes the increased cost to original under-estimation of quantities, and to additional water-way now shown to be necessary by the experience obtained of the effects of excessive floods.

2. The Government are greatly disappointed to find that they have been drawn into an expenditure upon the Ghaut quite unlooked for, and which it is only within the competence of the Government of India to sanction. Colonel Walker surmises that his letter giving cover to the first estimate must have prepared the Government for a supplemental demand; but so far from this being the case, they had Colonel Walker's assurance in that letter that "on the whole a very good approximation had been made to "the probable cost," and that this "impression was founded on many actual "inspections that he was in the habit of making all along the line."

2nd September 1865, No. 112, in G. O. 14th September 1865, No. 2,735.

3. The grants for works in the Coimbatore and Malabar Districts have of late years been made on an exceptionally liberal scale, and the Government, even if they had funds at their disposal available for the purpose, which they have not, would not be warranted in increasing the large assignments to those Districts, while the demands in others, in many cases of an equally pressing and of a more directly remunerative character, remain to be met; and moreover in the case of the Coonoor Ghaut no additional funds can be granted until the sanction of the Government of India has been obtained to the revised estimate.

4. Adverting to paragraph 4, the Government are of opinion that the tolls collected on the Ghaut should suffice for its ordinary repairs in future years; but if after experience they be found inadequate, the Government will then be prepared to consider the question of supplementing them.

5. Colonel Walker will be referred to G. O. No. 3,099, dated 28th September 1866, with reference to the concluding portion of his letter.

6. With these remarks the revised estimate will be laid before the Government of India for sanction with the following letter:—

(Here enter No. 3,301, dated 16th October 1866.)

(True Extract.)

Colonel, R. E.,
Secretary to Government.

To the Superintending Engineer, 7th Division.
" Controller of Public Works Accounts.
" Accountant General.

Exd. S. T. Augustin.

5

PUBLIC WORKS DEPARTMENT.
FORT SAINT GEORGE,
16*th October* 1866.

No. 3,301.

No. 383.
To

THE SECRETARY TO THE GOVERNMENT OF INDIA,
PUBLIC WORKS DEPARTMENT.

SIR,

CIVIL WORKS, No. 75.

1. Since the opening of the Madras Railway to Coimbatore has led to the diversion of nearly the whole of the traffic between the plains and the Neilgherries to the Coonoor Ghaut, the question of improving the means of access to those Hills by that route has pressed itself on the attention of this Government, and after various trial traces had been made for a new Ghaut, a line laid out under the direction of the Superintending Engineer by Captain Law, who has had great experience in road and Ghaut making, was approved of, and in September 1865, an estimate of Rupees 1,60,000 was sanctioned, the Government having then been led to believe, as will be observed from Colonel Walker's letter herewith sent, that that amount was a fair approximation to the probable cost of completing a new Ghaut to a width of 20 feet with a gradient of not more than 1 in 18 throughout.

G. O. 16th September 1865, No. 2,735.

2nd September 1865, No. 112.

2. The work has been carried on as actively as the limited funds at the disposal of the Government would admit, and altogether Rupees 1,30,822 have been appropriated to the work, leaving, as was supposed, a balance of only Rupees 29,178 to be provided. The Government have, however, been disappointed to receive a supplemental estimate amounting to Rupees 80,000, and, as this raises the total amount of the estimate beyond the limit which this Government are competent to sanction, I am to submit it herewith for the consideration of the Government of India, with a request that it may receive the early approval of His Excellency the Governor General in Council, in order that such funds as may be required to prevent the work being brought to an abrupt stop may be from time to time allotted to it.

	Rs.	Rs.
Estimate		1,60,000
Expenditure up to 30th April 1866	1,00,822	
Current year's grant ...	30,000	
		1,30,822
		29,178

3. The growing importance of the Neilgherry Hills, owing to the rapid extension of Coffee, Tea, and Chinchona cultivation by European settlers, as well as the expediency of improving the means of access to the Military station of Wellington, and of facilitating the transport of materials for the extensive Public Works now in progress on the plateau, make it almost indispensable that no delay should be allowed to occur in completing a work, which has met with the approval and commendation of the Secretary of State, and which, so far as it has yet been done, has been carried out in a manner to make it certain that when completed it will

From Secretary of State, No. 15, dated 31st July 1866.

be one not only highly creditable to those who have planned and executed it, but also as useful to the State as it will be valuable in its effect on encouraging the development of the agricultural capabilities of the Hills.

I have the honor to be,

Sir,

Your most obedient servant,

(Signed) CHARLES A. ORR, Colonel, R. E.,

Secretary to Government.

Exd. S. T. Augustin.

No 132

Superintending Engineer's Office

7th Division

From Camp Connor, 1st October 1866.

Lieut. Colonel E. W. Walker R.E.

Superintending Engineer 7th Division

To

Colonel C. A. Orr R.E.

Secretary to Government P.W. Madras,

Sir,

Enclosures.
1. Survey.
1. Estimate.
1 Estr. Appendix.

In forwarding the Estimate of Rs 160,000 for the New Connor Chaut Sanctioned in G.O. No. 2735 of 16 September 1865, I reported my opinion that its quantities were under-estimated & its rates overcharged - I recommended also Major Farwell's anticipation of a higher total of Estimate; the Bridges and Drains were also stated in my letter with an exception to be very insignificant, but that the nature of the ground was such as to preclude exact measurements & Estimates of them. - In G. O. No. 3573 of 24 November 1865 I recorded Memoranda by Major Farwell and myself of an Extraordinary Storm which occurred on the 23d October and a letter of Major Farwell's endorsed by me on the 15th December contains notes of an excessive flood which occurred on the 5th of

that months.—

2. From para 3 of the Despatch from the Right Honorable the Secretary of State for India quoted in Letter No. 2962 of 14th September 1866 I gather that Government had anticipated from the records above quoted that a supplemental Estimate would be required for Completing the New Coonoor Ghaut.— I have now the honor to submit such an Estimate amounting to Rupees 80,000 or 50 per Cent additional to the original.— Of this amount one half may be considered as due to original understimating of quantities, & the other half as due to additional waterway shewn to be necessary by the excessive floods.— I believe that the total amount of Rs. 240,000 or a rate of Rs. 15000 a mile for 16 miles of new Ghaut will not be deemed excessive by any Competent person who will take the trouble to examine the work already Completed.—

3. Out of the original Sanction of Rs 160,000 the expenditure up to 30th April 1866 and this years allotment of Rs. 30,000 would leave Rupees 29178 available on 31st March 1867, but of this years allotment all but Rs. 3000 have been expended by this date and if additional funds are not forthcoming work will have to be suspended during the last 5 months of the Year.— It is therefore as a matter of great emergency that I now advocate the grant of Rs. 20,000 more for pushing forward the work of this important Communication.— Every year that its opening is delayed adds heavily to the expense of the Conveyance of all Govt. Stores & of some of the most important materials for our Public Works; and I have also no hesitation in saying that the hand to mouth manner in which funds have hitherto been inadequately supplied has tended to anything but to economy of their outlay.— On the same grounds therefore that I advocate the raising of this years allotment from Rs. 30,000 to Rs. 50,000 out of any general savings that may hereafter accumulate, I urge an allotment in next years Budget of not less than Rs. 60,000.—

4. I also take this opportunity of recommending that a Maintenance allowance of Rupees per Running Yard or Rs. 3520 for 16 miles of new Ghaut be entered in future Budgets for its ordinary Repairs.— And I also take the liberty

Madras letter No. 132 of
1st Octr 1866 from the
Supt. Engineer 7th Dn
to the Secy to Govt
D.P.W. Madras

No 4048/66

Estimate Appendix

for Bridge of 70 ft.
Span over the Common
Nullah on the New
Coonoor Ghaut.

Rs. 7600

Sir,

I have the honor to be
Your most obedt. Servant

W. Winkler Lieut. C.E.
Supt. Engineer 7th Dn.

Dated 1st Octr 1866.
Rec'd 3rd do

No. 132.
Encls: 3.

Submitting Revised
Estimate of Coonoor
Ghaut.

Coonoor 1866 Rs. 16th

No 3201

Rs.

Rs 3200 - & 3201 - 16th Octr/66

Supt. Engineer 7th Dn
No 4048
Dated 1st Octr 1866
Rec'd 3rd do

To
The Secy to Govt D.P.W.
Madras

Sir,

I am directed to forward herewith for the information of Government, a letter from the Superintending Engineer 7th Division No. 132 dated 1st instant, submitting a revised estimate for a bridge of 70 ft. span over the Common Nullah on the New Coonoor Ghaut, amounting to Rupees Seven thousand six hundred.

2. The small Detachment of Sappers who were to have been kept on the Ghaut as long as the Service Could be made good use of, has been withdrawn and is not yet replaced, apparently from some misunderstanding on the part of the Quarter Master General of the Army.

I have the honor to be
Sir,
Your most obedt. Servant

W. Winkler Lieut. C.E.
Supt. Engineer 7th Dn.

Estimate No. 23 of 1866/67.

Neilgherry Range — Coimbatore District.

Work.— Constructing a Bridge of 70 ft. Span over the Common Nullah on the New Common Road.

Measurement Length	Measurement Breadth	Measurement Height	Contents	Particulars.	Price.	Rate.	Amount.	Total.
16'—	8'—	3'—	384—	Foundation to Abutments				
26'—	3'—6"	3'—	273—	do to Wing Walls				
14'—	6'—	12'—	1008—	Abutments above				
14'—	5'—	2'—	140—	do do				
24'—	2'—	12'—	576—	Wing Walls do				
			2381—	Cubic feet Rough stone in Chunam	9 —	p. 100 cft.	214 5	
16'—	—	12'—	192—	Rubble Facing to Abutments				
16'—	—	2'—	32—	do do				
38'—	—	12'—	456—	do to Wing Walls				
12'—	—	2'—	24—	do to do				
96'—	—	6'—	576—	do to Parapets				
			1280—	Square feet Cut Chunam in Chunam	80 —	p. 100 ft.	1024 —	
30'—	6'—	1'—6"	270—	Cubic feet Sabbing Rock for foot of Abutments	2 —	per cft.	540 —	
176'—	1'—	—10"	146—8"	2 Tie Beams				
62'—	1'—	—10"	51—8"	4 Queen Posts				
22'—	1'—	—10"	18—4"	2 Struts do				
46'—	1'—3"	—10"	47—11"	2 Stringers				
114'—	1'—	—10"	95—	4 Principal Rafters				
62'—	1'—	—10"	51—8"	4 Struts				
24'—	1'—	—10"	20—	4 Ties				
52'—	—9"	—10"	32—6"	4 Struts				
104'—	—9"	—10"	65—	4 do				
20'—	—6"	—6"	5—	4 Supports to hand Rails				
352'—	—6"	—4"	58—8"	4 Hand rails				
962'—	—5"	—2½"	83—6½"	96 Joists				
170'—	—5"	—2½"	14—9"	148 Chaining blocks between Joists				
88'—	13'—	—2"	190—8"	Plan Tiling				
30'—	1'—	—6"	15—	Wall plates				
56'—	1'—	—6"	28—	Joists framing				
			924—6	Cubic feet Teakwood unmsht & put up	4 —	per cft.	3698 —	
			462—6	do for Wastage	2 —	do	925 —	
			12	Iron plates with bolts and nuts complete	30 —	each	360 —	
			8	do do do do	25 —	do	200 —	
			4	Double do do do do	50 —	do	200 —	
			120	lbs of Round bar Iron for Bracing	—	2 — per lb.	15 —	
			60	lbs of Sheet Copper for Chunthing tops bearings	1 —	do	60 —	
								7236 5
				Sundries at 5 per Cent				363 11
				Total Estimate Rupees				7600 —

Executive Engineer's Office.
Neilgherry Range - - - - -
Dated Coonoor 25th September 1866

Lieut. Col. R.E.
Supg Engineer 7th Div.

Executive Engineer.

15

Public Works Department.

No. 3300

PROCEEDINGS of the MADRAS GOVERNMENT.

Under date the 16th Octr 1866

From

The Superintending Engineer
of the 7th Division

Read the following

(Here enter No. 132 dated 1st October 1866.)

An estimate of Rs 160,000
for the Coonoor Ghaut was sub-
mitted by the Superintend-
ing Engineer of the 7th Div.
Engineer and sanction-
ed by Government in
Pro: No 2935 of 16th Septr 1865.
With the letter above read Col
Walker submits a revised
estimate, exhibiting an excess
of Rs 80,000 or 50 per Cent
upon the former estimate,
and he attributes the increased
Cost to original under estima-
tion of quantities, and
to additional waterway more

shown to be necessary by the experience obtained of the effects of excessive floods.

The Government are greatly disappointed to find that they have been drawn into an expenditure upon the Ghat guides unlooked for, and which it is only within the Competence of the Government of India to sanction. Col. Walker intimates that his letter giving Cover to the first estimate must have prepared the Government for a supplemental demand; but so far from this being the Case, they had Col. Walker's assurance in that letter that "on the whole a very good approximation had

2d Sept/56. No 112
in G. O. 11 Sept/56
No 2735

17

been made to the probable Cost", and that the "imperfect was founded on many actual inspection that he was in the habit of making all along the line".

The grants for works in the Coimbatore and Malabar Districts have of late years been made on an exceptionally liberal scale, and the Government, even if they had funds at their disposal available for the purpose, which they have not, would not be warranted in increasing the large assignments to those Districts, while the demands in others, in many cases of an equally pressing and of a more directly

remunerative character, remains to be met; and moreover in the case of the Coonoor Ghat no additional funds can be granted until the sanction of the Govt. of India has been obtained to the revised estimate.

Adverting to Para 4, the Govt are of opinion that the Toll Collected on the Ghat should suffice for its ordinary repairs in future years; but if after experience they be found inadequate, the Govt will then be prepared to consider the question of supplementing them.

Col. Walker will be referred to G. O. No 3099 dd 28 Sept/66. with reference to the concluding portion of his letter.

With these remarks

19

the revised estimate will be laid before the Govt of India for sanction with the following letter:-

No & dd

To

1 The Secretary
4 Chief Engineer
3 Accountant General

Dept 15th October with Survey estimate

P W 1866 Oct

Pro: of Govt for Octr

10

No: 3300

Pro: of the Madras Govt

Dy 16 Octr 66

Papers orders on a letter from the Sub.g. Engr of the 7th Dr submitting a revised Estimate amounting to £240,000 for Coonoor Ghaut (new) in the Coimbatore Dt.

No 381 - 382

8th Octr 1866 R. 16th

2|

No 3301.

The Secretary to the Govt of India. P.W.D.

Sir,

Since the opening of the Madras Railway to Coimbatore has led to the diversion of nearly the whole of the traffic between the plains and the Neilgherries to the Coonoor Ghât, the question of improving the means of access to those hills by that route has pressed itself on the attention of this Govt, and after various trial traces had been made for a new Ghât, a line laid out

out under the direction of the Supg: Engineer by Capt: Law, who has had great experience in road and Ghât making, was approved of, and in September 1865, an estimate of Rs: 1,60,000 was sanctioned, the Govt: having then been led to believe, as will be observed from Col: Walker's letter herewith sent, that that amount was a fair approximation to the probable cost of completing a new Ghât to a width of 20 feet with a gradient of not ~~more~~ than 1 in 18 throughout.

G. O. 16th September 65. N: 2735

2d Sept/65. " 112

The work has been

Estimate ..... Rs: 1,60,000

Expenditure up to 30th April/66 } 1,00,822

Current Years grant } 30,000 ..1,30,822

29,178.

been carried on as actively as the limited funds at the disposal of the Govt would admit, and although Rs: 1,30,822 have been appropriated to the work, leaving, as was supposed, a balance of only Rs 29,178 to be provided. The Govt have, however, been disappointed to receive a supplemental estimate amounting to Rs: 80,000, and, as this raises the total amount of the estimate beyond the limit which this Govt are competent to sanction, I am to submit it herewith for the consideration of the Govt of India, with a request that it may receive the early approval of His Excellency the Governor General

General in Council
in order that such funds
as may be required to
prevent the work being
brought to an abrupt
stop may be from time
to time allotted to it.

The growing im-
portance of the Neil-
gherry Hills, owing to the
rapid extension of Coffee,
Tea and Cinchona cul-
tivation by European
settlers, as well as the
expediency of improving
the means of access to
the Military Station
of Wellington, and of
facilitating the
transport of materials
for the extensive Pub-
lic Works now in progress
on

From Secretary of State
No 15 of 31 July 1866

on the plateau, make
it almost indispensable
that no delay should
be allowed to occur in
completing a work which
has received the approval and commenda-
tion of the Secretary of State, and which
so far as it has yet
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ner to make it certain
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it will be one not only
highly creditable to
those who have planned
and executed it, but
also as useful to the
State as it will be valu-
able in its effect on en-
couraging the development
of the agricultural capa-
bilities of the Hills.

Sent to Govt
16th Oct 1866

Reply 18th October with four Enclosures
× one Survey, one Letter & two
40 Sheets 2735 lbs + 3300 lbs

No 1 Dated 10 Oct 1866

Rec'd of Court for Orders

10

No 3307

To

The Secy. to the Govt of India.

Dated 16 Octr 66.

The Govt of India

requested to sanction the

withdrawal mentioned.

No 3823

Rec'd 8th Octr/66.