

13. 1646 W 12. 6. 83

13. 1967 W 13. 7. 83

Endowment No. ⁷²⁶
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^{85.1}
dated 24th August/83.

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Forwarded to the
Chief Engineer P. W. Deptt
with the remark that the
items remaining still
unremedied have been
noted in the objection-
able Items statement for
May 1883.

J. O. Conway

Examine. M. C. C. G.

27th May 28/8
24/8

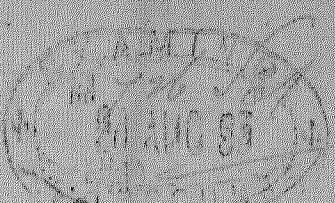
No 2604, May 28th - Aug 1883

B

Recorded

28/8

28/8



From

No. 7318

The Sup of Engineer
1st Circle

To No 2604, May 28-8-83

The Chief Engineer

P. W. Department

Thro: The Examiner

P. W. Accounts

Dated 11th

Despd 14th

Recd 27th

August/83

No 2078

Enclosure

Objectionable Items
Statement for March/83.
Furnishing explanation
for certain items in
the —.

With order

Subd in Regt. No 10

No. 20792

FROM,

THE SUPERINTENDING ENGINEER

FIRST CIRCLE.

TO,

THE Chief Engineer

P. W. Department

Thro' the Examiner
P. W. Accounts.

D. WLAISHWERAM, 11th August 1883

SIR,

Adverting to G.O. No. 1646 W. d/12-6-83
passing orders on the statement of objec-
tionable items in the accounts of Engineers
for March 1883, I have the honor to state as
follows.

Items 1, 2, 5 & 6 — A reference has been made to the Examiner
vide this Office No. 950 G.O. dated 24-6-83
on the subject.

Items 3 & 7 — Revised estimate was sanctioned in G.O. No.
1267/1697 W. dated 13-7-83.

Item 4. — Vide remarks in my No. 181 G.O. dated 25-7-83
opposite to item No. 4.

Items 8 & 9 — Vide remark in my No. 193 G.O. d/3-8-83
opposite to item 7 & 8.

Item 10 — Vide remark in my No. 193 G.O. d/3-8-83
opposite to item 10.

Not received

27/8/83

I have the honor to be,
Sir,

your most obedient servant

D. Wlaishweram

Offr. Supr. Engr. 1st Circle.

Compd 28/8

B. 1646 W 12-6-83
P. 1967 W 13-7-83

NOTES.

REFERENCE TO MADRAS P. W. D. CODE.

CHAPTER XIV.—PARAS. 1829 to 1832.

1. The object of this Return is to place before Government an analysis of all shortcomings in matters of financial regularity in the operations of each month with a view to their being remedied. It should be submitted to Government on the first day of the third month succeeding that to which the accounts relate.

2. There should be a separate statement for each separate Fund—Imperial, Provincial, Local, and Irrigation.

3. The Provincial statement will be posted from the Divisional Statements of Objectionable Expenditure. The statement need not be delayed in order to embody the remarks of the Superintending Engineers if these do not reach the Examiner's Office in time. It is desirable, however, that the Superintending Engineer's opinion should be recorded as far as may be practicable, and, in order to ensure this being done, the Divisional Statement of Objectionable Items should be checked immediately on receipt and sent to the Superintending Engineer for his remarks before the audit of the other accounts is proceeded with.

4. All Executive Officers who have failed to submit their Divisional Statements of Objectionable Items with their Monthly Accounts, as well as those whose statements are generally incomplete, should be specially brought to the notice of Government under "General Remarks" at the end of the statement.

5. Items of irregular expenditure which are left unincorporated in Executive Engineers in their Divisional Statements of Objectionable Items should be distinctly noted as such either in a separate supplementary statement or in the original statement in red ink.

6. Columns under all the heads should be filled up in each case so as to bring out clearly where estimate or appropriation exists and where it does not.

7. In the case of large projects such important features as the following should be stated with precision :—

A. Lump sum estimate.	{	1. Submitted to Chief Engineer.
B. Abstract detail estimate by sub-heads, and so on.		2. Submitted to Superintending Engineer.
		3. Not yet submitted.

8. A large work which is proceeded with on merely a lump sum sanction is still objectionable till an abstract and detail estimate by sub-heads is submitted and sanctioned for it by competent authority.

9. Special mention should be made of works being carried out in portions by authorities, beyond whose powers of sanction it would be to sanction the expenditure as a whole.

10. An important point to notice is the duration of a serious irregularity.

11. Voluminous masses of detail, when their practical significance could be given in a few lines, should always be avoided as a rule. If, for instance, the state of matters as to sanction in one month does not materially differ from that of a preceding month, it will answer all practical purposes to say so, instead of sending another full report.

12. Too much stress can never be laid on the fact that this statement is not to take place of special reports, then and there, of works on which serious irregular expenditure is being largely incurred, either without estimate or appropriation.

134804/9.5.83

P. W. D. Madras.
Form No. M 64 a.

CENTRAL OFFICE OF ACCOUNTS.

CIRCLE First

FUND Provincial

Provincial Statement of Objectionable Items
in the Accounts of Executive Engineers
for the Month of March 1883.

No. _____
MADRAS,
Dated 7th June 1883.

FORWARDED for orders to the Secretary to Government, Public Works Department, Madras.

P. P. Gordon

Examiner of P. W. Accounts,
Madras.

No 1646 W d/12-6-83

With orders
Encl. in Receipt Memo.

100/4
Encl. in Receipt Memo.

Provincial Statement of Objectionable Items in the Accounts requiring the

Item No.	Particulars of each Item.	Month in the Accounts of which Objectionable Expenditure first appeared.	COMPARISON WITH ESTIMATE.			COMPARISON WITH APPROPRIATION OF THE YEAR.			Expenditure during the Month.
			Amount of Estimate.	Expenditure up to Date.	Excess over Estimate.	Amount of Appropriation.	Expenditure of the Year.	Excess over Appropriation.	
1	Godavari Eastern Excess over Estimate Manufacture of Stone at Dowlaisheram	June 1882	10150	32549	22399				2443
2	Manufacture of Lime at Dowlaisheram	June 1882	3010	6063	3053				523
3	Vizagapatam Excess over Estimate Constructing new Pottingly Grant	Sept 1881	130400	307438	177038				16065
4	Excess over appropriation Constructing Bank of Madras Buildings at Leocanada	March 1883				6167	8250	2083	5213

of Executive Engineers for the Month of *March* 1883
orders of Government.

Opinion of the Superintending Engineer,
with Final Remarks by Examiner.

Orders by Government.

No 1646 Wd 12th June 83

Revised Estimates re-
ceived and returned
to Superintending
Engineer to obtain the
Sanction of Government
there to under Code para
2141

Estimates should be early
submitted for the sanction of
Govt.

Sanction to Revised
Estimate Still awaited

Estimate being examined

This is a contribution work
and the excess is owing
to additional funds
not having been ob-
tained from the Bank
authorities. The work
has also been given
up by this Depart-
ment.

It is very irregular to incur
outlay in excess of contribution
received - The Superintending
at once take steps to recover
the amount spent in excess
of contribution and report as
soon as the amount is ad-
justed.

Provincial Statement of Objectionable Items in the Accounts requiring the

Item No.	Particulars of each Item.	Month in the Accounts of which Objectionable Expenditure first appeared.	COMPARISON WITH ESTIMATE.			COMPARISON WITH APPROPRIATION OF THE YEAR.			Expenditure during the Month.
			Amount of Estimate.	Expenditure up to Date.	Excess over Estimate.	Amount of Appropriation.	Expenditure of the Year.	Excess over Appropriation.	
	<u>Works for which revised Estimates are likely to be required</u>								
5	Manufacture of Stones at Dowlaishweram	June 1882	10150	32549					
6	Manufacture of Lime at Dowlaishweram	Decr	3010	5539					
	<u>Miscellaneous Irregularities Works for which revised Estimates are required</u>								
7	Constructing New Poringhy Dyke	Sept 1881	30100	301438					18868
8	Completion Reports due for works of 1881-82 under Rs 2500 each.								
	2 Works — — — —	Feb 1882	75	89					
9	One work of 1882-83 under Rs 2500	Oct 1882	950	726					

of Executive Engineers for the Month of orders of Government.

March 1883

Opinion of the Superintending Engineer, with Final Remarks by Examiner.

Orders by Government.

Revised Estimates received and returned to Superintending Engineer to obtain the sanction of Government there to under Code para 2141

Vide orders against items Nos 1 and 2 -

Sanction to revised Estimate still awaited

Vide orders against Item No 3 -

The non-submission of these Completion Reports is again brought to notice of Government.

The attention of the S.E. is directed to the orders in the O.S. for Feb/83

Provincial Statement of Objectionable Items in the Accounts
requiring the

Item No.	Particulars of each Item.	Month in the Accounts of which Objectionable Expenditure first appeared.	COMPARISON WITH ESTIMATE.			COMPARISON WITH APPROPRIATION OF THE YEAR.			Expenditure during the Month.
			Amount of Estimate.	Expenditure up to Date.	Excess over Estimate.	Amount of Appropriation.	Expenditure of the Year.	Excess over Appropriation.	
10	Deposits Ordinary outstanding for more than 3 months 10. Items deposited from June 1877 to December 1881 — — — Rs. 553								

of Executive Engineers for the Month of
orders of Government.

March 1883

Opinion of the Superintending Engineer,
with final Remarks by Examiner.

Orders by Government.

In the statement of objectionable items for March, the Executive Engineer States that orders have been sent to Sub-divisional officers to expedite the payment of this amount

Adjustment will be made of —

CV
9/6

D. P. Goudar

Examiner of P. W. Accounts,

Madras.

To The Engr. Insp. - First Circle
From The Examiner P. W. Accounts
9/6

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of 1883 Madras.

PUBLIC WORKS.

Dated July, 13th.

Recd.

Encl.

G.O., 13th July 1883, No. 1967 W.

JULY.

Potinghy Ghat Road

Revised estimate for completing the —, sanctioned; and services of Messrs. T. D. Harris and H. E. Clerk and subordinates employed on the work, warmly acknowledged.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

READ—the following papers:—

From G. T. WALCH, Esq., Officiating Superintending Engineer, First Circle, to the Chief Engineer, Public Works Department, dated Dowlaishweram, 24th May 1883, No. 78 V.Z.

I have now the honor to forward, herewith, the revised estimates, &c. (as per 1 List of Plans and Estimates. enclosed list), for the Pottinghy Ghât, 1 Copy of letter, No. 341, dated 16th May 1883, from the Executive Engineer, Vizagapatam Division. prepared as suggested in my No. 585 V.Z., paragraph 4, and approved in your No. 322 C., dated 31st January 1883.

2. These were received from the Executive Engineer, Vizagapatam, on 28th ultimo, but when I looked into them I found it necessary to call for explanation on certain points, the chief of these being the increase in rates allowed for work yet to be

done above the actual of work already done, and the Executive Engineer's explanation *
* No. 341, dated 16th May 1883.
on this subject, which reached me on the 20th instant, I enclose a copy of.

ENCLOSURE.

From T. D. HARRIS, Esq., Executive Engineer, Vizagapatam Division, to the Superintending Engineer, First Circle, dated Waltair, 16th May 1883, No. 341.

With reference to your No. 50 V.Z., dated the 7th May 1883, I have the honor to report that the main cause for the increase of rates is the different classes of work now encountered. Up to the end of January 1882 all the work was near the foot of the ghât and none of the heaviest work was done at all.

2. As regards the different items mentioned in your remarks, I will take them separately.

(1.) *Earthwork*.—The original opening out a path or the beginning of widening the road is always fairly easy. It is when once comes to finishing off and clearing away the hard pieces that have been left by former workmen that the rates rise. Forming the road surface, which is charged to earthwork, necessitates not only digging, but carefully filling in again in a given form. This adds materially to the cost. In the estimate submitted in April 1881 the rate provided for by me was 4 annas per cubic yard, or Rs. 9.25 per 1,000 cubic feet, but the rate was reduced to 3 annas per cubic yard, or Rs. 6.94 per 1,000 cubic feet, by Colonel Prendergast for reasons unknown to me. Thus you will observe that the rate now allowed in the revised estimate is less by 8 annas per 1,000 cubic feet than the rate allowed in 1881, and it is not possible to get work done at lower rates than this in such a place.

(2.) *Removing rock without blasting.*—The rate allowed by Colonel Prendergast and approved of by Colonel Sankey was allowed to remain. As there is yet a great deal of work to be done in the upper section, the cost of labor will be increased, which will materially add to the cost.

(3.) *Blasting and removing rock.*—The increase of rate is partly due to the work now being done in the upper sections, by which the cost of carriage and labor is materially increased; also to the fact that none of the blasted rock used for revetment has been counted in striking the rates. All the rock that is blasted is used up either for revetment or parapet wall, but as the quantity of rock so used up was not included in the item of blasting and removing rock, the rate was increased. Orders have been issued so that the real amount of rock blasted will be shown hereafter. Although the rate now allowed in the revised estimate hardly represents the true rate at which rock has been removed, yet I consider it may be allowed to stand.

(4.) *Rough-stone revetment.*—It is very natural that the rate for this should rise as the work goes on. No heavy revetments were built until 1882; and in many cases these cost Rs. 1-8-0 per cubic yard, which materially influences the general rate. As the work gets on, all the available stone is used up, until at the end a revetment otherwise easy becomes very costly owing to the distance from which stone has to be fetched. It has been found that parapet walls which ought not to cost more than from 8 annas to 10 annas have in this way come to 12, even 14, annas per cubic yard. I might here say for your information that it is not possible for us to get revetments built for such a cheap rate, but for dynamite, which breaks off stones into serviceable pieces for revetment work at all points.

3. In conclusion I beg to inform you that I do not think it will be possible to work much lower than the rates at present shown in the register of works, nor do I think that for ghât work, so far from the centres of labor, the rates are excessive. Great care has been taken to keep the rates as low as is consistent with getting a maximum supply of labor, and I feel sure that they will compare favorably with those on other works of a similar nature.

From G. T. WALCH, Esq., Officiating Superintending Engineer, First Circle, to the Chief Engineer, Public Works Department, dated Dowlaiswaram, 14th June 1883, No. 118 V.Z.

In continuation of my letter, No. 78 V.Z., dated 24th May 1883, I have the honor to forward, herewith, a specification report just received from the Executive Engineer to be attached to the revised estimate for the new Potinghy Ghât Road.

Memorandum by the Chief Engineer, Public Works Department.

The revised estimate for completing the Potinghy Ghât Road is submitted for the sanction of Government.

2. The original estimate for this work was sanctioned in G.O., No. 1803, dated 18th July 1876, for Rs. 1,30,400. A revised estimate, amounting to Rs. 3,27,300, was submitted in July 1881, but was returned for revision with the Chief Engineer's memorandum, No. 316, dated 26th July 1881. It was again submitted in September 1882 (amounting to Rs. 3,31,800), but being still deficient in certain important particulars, it was once more returned for further revision with the Chief Engineer's memorandum, No. 1871 C., dated 19th October 1882. Since then several communications on the subject have passed between the Chief Engineer and Superintending Engineer, and the complete estimate has now been submitted for Rs. 4,20,465. Owing, however, to a slight alteration, explained below, the total amount has been raised to Rs. 4,22,711.

3. The Chief Engineer cannot say that the revised project has been sent up in a satisfactory manner, as for instance, a comparative statement is altogether wanting, a most important component of a revised estimate, and in other respects the documents are defective; but there have been many difficulties and drawbacks to contend

with in the preparation of the estimate, as in the execution of the work itself, and the Government will perhaps overlook deficiencies in consideration of the nature of the

Died.
Private T. Reardon, Overseer, 3rd Grade.
Mr. J. Gibbs, Temporary Overseer, 2nd Grade.
Mr. T. J. Kelly, do. do.
Mr. E. L. Rebeiro, do. 1st Grade.

Transferred on account of Sickness.
Sub-Conductor J. Kelly, Supervisor, 1st Grade.
Mr. P. Whitbread, Overseer, 1st Grade.
P. N. Soobiah Naidu, Supervisor, 2nd Grade.
Mr. J. Hamnett, Supervisor, 1st Grade. { Since
Mr. S. Francis, do. do. { pen-
Mr. J. Hicken, do. 2nd Grade. { sioned

Transfers applied for on account of Sickness.
Sub-Conductor J. Keenan, Sub-Engineer, 2nd Grade.
T. Vythialingum Pillay, Supervisor, 1st Grade.

work and of the deadly character of the climate of the ghât. These difficulties have been quite exceptional, and the deaths and invalidings among members of the establishment during the progress of the work have been regretably large as will be seen from the marginal statement. Mr. Harris, the Executive Engineer, has himself been more than once in a very critical state from fever there contracted.

4. The rate for earthwork, Rs. 8-12-0 per 1,000 cubic feet, is not high for the locality, if the filling be thoroughly well done. The rate for blasting, Rs. 10 for a unit of 100 cubic feet, is very low, chiefly owing apparently to the use of dynamite. For rough-stone revetment the rate is Rs. 3-6-0 per 100 cubic feet, not high if the work be first class. For metalling and gravelling the rates are low for good work in such a locality.

5. The estimate, as submitted, provided for a depth of 4 inches of metal and 3 inches of gravel, but the Chief Engineer considers that there should not, if possible, be less than a consolidated thickness of 5 inches of metal, while 1 inch of gravel would suffice for surfacing. The estimate has therefore been altered accordingly in this office, the result being a slight increase in the total cost.

6. An important point touched upon in the papers is that the quantities of work passed and paid for are considerably in excess of the work actually done, as ascertained by careful measurements of the road in its present existing state. Part of this difference only is accounted for by deviations, but on a large work of this character there is always a tendency to over-measure work so as to keep down the rates. The Chief Engineer has no doubt, from his own inspection of the work, that owing to want of proper setting out in the first instance, and the absence of bench-marks and level pegs, a great deal of work had to be redone, and that the excesses due to this must be added to those above mentioned. These circumstances have necessitated a peculiar preparation and arrangement of the estimate. Work has been provided for (said to have been done up to the end of January 1883) as per the books, and then the work which remains to be done, after careful mile to mile measurements, is allowed. The cost of the former is largely in excess of the latter, but in the circumstances of the case, there is apparently no more reliable or satisfactory system available, however objectionable it may be in principle.

7. The numerous road dams built or provided for on many portions of the ghât will eventually prove a great nuisance and obstruction to traffic, and wherever many of these come close together, they should be replaced by proper covered drains, more especially on the steeper gradients. The Superintending Engineer should lose no time in submitting a supplemental estimate for these culverts, which should be carried out while operations on the ghât are in progress.

8. In conclusion, the Chief Engineer would bring to the favorable notice of Government the exertions made by Mr. Harris, the Executive Engineer, Mr. H. E. Clerk, Assistant Engineer, and all the subordinates employed on the ghât, in pushing on this important project towards completion. A more trying work has probably never before been carried out in this Presidency.

OOTACAMUND,
13th July 1883.

(Signed) R. H. SANKEY, Colonel, R.E.,
Chief Engineer, P.W.D.