

(1) Number of pages _____
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(3) Initials of the Referencer _____

MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

G.O. No. <i>11</i>	Press Mis.
<i>21 22</i>	
Dated <i>5 1</i>	1807.

Not to be folded or roughly handled

No 21.

Read the following —

No 3,523
Statement of objectionable items in the accounts of Mr J M Hawksworth, Assistant Engineer in charge of
No 2 or Sharmadary Range, of the Tinnevely District, for May and June 1868, requiring the orders of
Government, forwarded under paragraph 89, Section II, of the Manual of Accounts

Particular of each item	AMOUNT				Superintending Engineer's explanation	Remarks by Controller
	Of estimate or Item	Expended up to date	Expended during the months quoted above	Disallowed pending order		
Constructing bridge across Varanuddy river, sanctioned in G O, No 263, dated 25th January 1867, Public Works Department	RS 3,000	RS A P 3,490 12 9	RS A P * 490 12 9	RS A P 399 7 0	Vide original letter No 1,801, dated 10th November 1868, with four enclosures, herewith forwarded	Under the circumstances set forth in the letters from the Range Officer and the Executive Engineer in charge of the Superintending Engineer's Office, 8th Division, the sanction of Government is requested to the excess of Rupees 399-7-0 being admitted by this Office

* Including Petty Establishment charged to work, Rs 91 5 9, vide Proceedings of Board of Revenue, No 5,630, dated 3rd August 1868
MADRAS,
19th November 1868
(Signed) S BROCK,
Controller of P W Accounts

From the Officer in charge of the Superintending Engineer's Office, 8th Division,
to the Controller of Public Works Accounts, dated Madura, 10th November
1868, No 1,801.

- * Of 21th July and 8th August
- 2 Statements of objectionable items
- 1 Copy of Range Officer's letter
- 1 Comparative Statement

1. I have the honor to return your
Statements* of objectionable items,
Nos. 1,323 and 1,750, with copy of
letter from the 2nd Range Officer, Tinnevely, No 312 of 4th instants, and comparative statement, exhibiting the work
carried out on the Varanuddy bridge

11 extra beams — 53 — 7 — 0
Total. Done work 618 — 11 — 9

*Proceedings of the Madras Government, Public Works Department,
5th January 1869.*

2 Several calls were made on the Range Officer; but the explanations he was called on to give were not clearly stated till now.

The items of excess expenditure are as follow:—

	RS.	A.	P.
On stone beams	115	11	10
Covering stones	275	2	3
Corbels	64	6	3
Stone facing to piers	109	15	11
Eleven extra beams	53	7	6

Total stone work	618	11	9
On foundations, sundries, &c.	101	10	1

Total excess	720	5	10
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And there are savings on—

Rough stone work	90	8	5
Brick work	86	5	10
Plastering	8	0	3

Total savings	184	14	6
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Balance excess	535	7	4
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This excess, however, is further reduced by allotment for work establishment

91	5	9
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Recovery by sale of materials

44	10	7
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Total	136	0	4
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Net excess	399	7	0
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3 Now, as regards the explanation given by Mr Hawksworth—

(1) & (3)—Three girders were sanctioned in the estimate; but four girders with corbels were sanctioned in a letter from this Office, dated 4th May 1867, by which an excess expenditure of Rupees 130-14-7 was authorized. The excess represented for the girders is Rupees 115-11-10.

(2) & (6).—The superstructure has been changed from four girders with cross covering stones, to a platform consisting altogether of longitudinal stone beams. In support of this alteration, Mr Hawksworth quotes a demi-official communication that authorized him to alter the design "provided no excess was involved," but the excess amounts to

(3).—The excess of Rupees 64 6 3 results from the greater number of corbels in the changed plan

(4).—Instead of the platform resting on the brick piers as estimated, a stone beam has been added on each pier and abutment, to bear the superstructure, causing an excess of Rupees 53-7-6

(5).—A cut-stone facing has been built to the piers and cut-waters, as considered preferable to brick work; this is a new item, not estimated, and amounts to Rupees 109-15-11.

Thus the Range Officer has made alterations without official sanction, as shown above, amounting to Rupees 393, and has substituted stone facing for brick work in the piers, as a separate new item, at a cost of Rupees 109-15-11, so that the expenditure on stone work has become Rupees 618-11-9 in excess, while authority was given for only Rupees 130-14-7.

*Proceedings of the Madras Government, Public Works Department,
5th January 1869.*

4 The work as executed has not cost more than its fair value, the facing of stone was a judicious measure, when the effect of floods bringing down trees, &c. against the piers was perceived, and the alterations in the superstructure are probably an improvement but as platform bridges are often constructed without the extra stone work (Rupees 53-7-6), and as the stone facing was an entirely new feature, Rupees 109-15-11, the Range Officer is highly to blame for not applying for sanction before incurring this expenditure.

The explanation of the main alteration given by Mr. Hawksworth (6), that he could at no time say what the excess would be, is very unsatisfactory; if he had only taken the trouble to revise his estimate according to the change he intended making in the plan, he must have foreseen the additional cost, and should then have asked for orders

Finally, as the excess on foundations, sundries, &c, Rupees 101-10-1, is more than covered by the saving effected on rough stone and brick work, and the net excess is caused by the execution of unauthorized work not included in the estimate, I consider the Range Officer deserves grave censure for neglect in not calculating beforehand what he was undertaking, and for carrying out entirely new items without asking for sanction

From J M HAWKSWORTH, Esq, Assistant Engineer, 2nd Range, Tinnevely, to the Superintendent Engineer, 8th Division, dated Nannagarum, 4th November 1868, No 312

Your Memorandum, No 1,724, of 31st October 1868

1 The four beams or girders were sanctioned in the estimate and in your letter No 231 of 4th May 1867. The two side ones support the additional weight of the parapets. The two centre ones besides the roadway are so laid as to carry the weight of the passing load.

2 The thickness (or depth) of the coverings ones in the estimate was but 3 8ths of a foot, this when altered to beams to span from pier to pier had to be increased to one foot to be effective, hence the excess Rupees 275-2-3

3 The above alteration necessitated corbels along the whole of the top of the piers, whereas in the estimate only the four girders were allowed with corbels. Hence the excess in this item Rupees 64-6-3

4 Having corbels on the whole length of the piers, I considered it to be inadvisable to have them resting immediately on brick work, as that substance was so friable, and in order to avoid any damage from that source, and to obtain an even pressure along the whole length of the pier from the superstructure, I ordered a beam to be laid along the top of each pier and abutment

	RS.	A.	P.
Eleven stone beams	53	7	6
Deduct saving of brick in chunam work allowed in the estimate	14	5	3
Actual excess	39	2	3
Stone facing	109	15	11
Deduct saving of brick work allowed in the estimate	17	9	3
Actual excess	92	6	8

The difference of price in cut-stone and brick-in-chunam is the excess in this item

The eleven beams are those that are placed over the two abutments and nine piers

The cut-stone facing to the cut-waters of the piers were also deemed necessary whilst under construction. The difference between cut-stone and brick-in-chunam causes the excess in this item

6 These alterations and additions arose as the work progressed, principally caused by the main alteration from a girder bridge to that of a platform, the sanction for which I had but demi-official correspondence to refer to, and as I could at no time say what the excess, if there should be any, would be, I hoped that a rapid completion of the bridge would be a sufficient apology of

11 extra beams

Total Stone work 618 - 11 - 9

*Proceedings of the Madras Government, Public Works Department,
5th January 1869.*

the breach of the rule to apply for sanction, which would undoubtedly have delayed the progress of the work and caused much deterioration in the chunam and material collected, and loss to the contractors engaged

7 If there should be any difficulty in covering the unavoidable excess from Government funds, I have no doubt the people in the neighbourhood would gladly subscribe a moiety, or the whole, if necessary, although they have already subscribed Rupees 1,552-5-9

No 22 ORDER THEREON, 5th January 1869, No 11.

ACCOUNT, No. 2

1. Under the explanation afforded in these papers, the Controller of Public Works Accounts is authorized to pass the excess expenditure of Rupees 399 7-0 incurred on the bridge over the Varanuddy river on the road from Tenkasi to Ambasamoodrum in the Tinnevely District

2 The Government consider that the Range Officer is to blame for not having obtained the previous sanction of the Superintending Engineer to the alterations carried out by him in the design of the bridge.

(True Extract.)

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

To the Superintending Engineer, 8th Division
.. Controller of Public Works Accounts
.. Accountant General

Exd. S T Augustin.

N^o 1807 Superintending Engineer's Office 8th Division
Madras 10th November 1868

From
The Executive Engineer
in charge of the Public Works
Office 8th Division

To
The Acting Controller of
Public Works Accounts
Madras

Sir,

I have the honor to return your
Statements of objectionable items, N^o 1323 and
1750 with Copy of Letter from the 2^d Range
Officer Tinnevely, N^o 312 of 4th Instant, and
Comparative Statement exhibiting the work carried
out on the Varanuddy bridge. —

Several calls were made on the Range
Officer, but the explanations he was called on
to give, were not clearly stated till now.
The items of excess expenditure are as follows

Out stone beams	Rs 115 — 11 — 10
Covering stones	275 — 2 — 3
Corbels	64 — 6 — 3
Stone facing to piers	109 — 15 — 11
11 extra beams	53 — 7 — 6

Total. One work 618 — 11 — 9

618-11-9

On foundations, Sundries &c. — 101-10-1
Total cost 720-5-10

and there are savings on

Rough stone work Rs 90-8-5

Brick work — 86-5-10

Mastering — 8-0-3

Total savings — 184-11-6

Balance excess Rs 535-7-1

This excess however is further reduced by allotment for work to be
= blishment — 91-5-7

Recovery by sale of materials 14-10-7

Total. — 136-0-1

Net excess Rs 399-7-0

3. Now as regards the explanation given by Mr. Hawksworth.

(1) & (2) Three girders were sanctioned in the estimate; but 4 girders with Corbels were sanctioned in a Letter from this Office dated 4th May 1867, by which an excess expenditure of Rs 130-11-7 was authorized. The excess represented for the girders is Rs 115-11-10.

(2) and (6) The superstructure has been changed from 4 girders with cross covering stones:

to a platform consisting altogether of longitudinal stone beams. In support of this alteration Mr. Hawksworth quotes a demi-Official Communication that authorized him to alter the design "provided no excess was involved": but the excess amounts to Rs 275-2-3.

(3) The excess of Rs 64-6-3 results from the greater number of Corbels, in the Changed plan — 64-6-3.

(4) Instead of the platform resting on the brick piers as estimated: a stone beam has been added on each pier and abutment, to bear the superstructure, causing an excess of Rs 53-7-6 — 53-7-6.

(5) A Cut-stone facing has been built to the piers and cutwaters, as considered preferable to brick-work: this is a new item not estimated and amounts to Rs 109-15-11. Thus the Range Officer has made alterations, without Official sanction, as shown in the margin amounting to Rs 393: and has 393-0-0

substituted stone facing for brick work in the piers, as a separate new item, at a cost of Rupees 109-15-11: so that the expenditure on stone work has become Rs 618-11-9 in excess, while authority was given for only Rupees 130-14-7. —

4. The work as executed has not cost more than its fair value; the facing of stone, was a judicious measure, when the effect of floods bringing down trees &c. against the piers was perceived; and the alterations in the superstructure are probably an improvement: but as platform bridges are often constructed without the extra stone work, (Rs 53. 7. 6) and as this stone facing was an entirely new feature, Rs 109-15-11, the Range Officer is highly to blame for not applying for sanction before incurring this expenditure. —

(The explanation of the main alteration given by Mr. Hawksworth (6) that

that he, could at no time say what the excess would be, is very unsatisfactory: if he had only taken the trouble to revise his estimate according to the changes he intended making in the plan, he must have foreseen the additional cost; and should then have asked for orders. —

(Finally, as the excess on foundations, Sundries, &c. Rupees 101-10-1 is more than covered by the saving effected on rough stone and brick work, and the net excess is caused by the execution of unauthorized work not included in the estimate: I consider the Range Officer deserves grave censure, for neglect in not calculating beforehand what he was undertaking, and for carrying out entirely new items without asking for sanction. —

I have &c

Wm. Pennington Captain R.E.,
Executive Engineer in charge of the S. & S.
Engineers Office S. Division

No 312

Tinnevely, 2^d Range Office
Nannagarum 4th Porem 1868

From

The Assistant Engineer 2^d Range
Tinnevely

To The Superintending Engineer
3^d Division

Your Memo No 1724 of 31st October 1868.

1. The cross beams or girders were sanctioned in the Estimate in your letter No 231 of 4th May 1867. The two side ones support the additional weight of the parapets.

The two centre ones besides the roadway, are so laid as to carry the weight of the passing load.

2. The thickness (or depth) of the covering stones in the Estimate was but $\frac{3}{8}$ of a foot, this when altered to beams to span from pier to pier had to be increased to 1 foot to be effective. Hence the excess Rupees 275-2-3.

3. The above alteration necessitated Carrels along the whole of the top of the piers, whereas in the Estimate only the 4 girders were allowed with Carrels. Hence the excess in this item Rupees 64-6-3.

RECEIVED
NOV 16 1868
Tinnevely

The Consulting Engineer
in charge of the
Engineering Department

The Consulting Engineer
of the Government
of Madras

Dated 10th November 1868
Tinnevely

For the Government of Madras
has been inspected and
forwarded to the Engineer
in charge of the subject
and the subject

4. Having Corbels on the whole length of the piers I considered it to be inadvisable to have them resting immediately on brick work as that substance was so friable and in order to avoid any damage from that source & to obtain an even pressure along the whole length of the pier from the superstructure, I ordered a beam to be laid along the top of each pier & abutment.

The difference of price in cut stone & 11 stone beams - (see) 53-7-6
 Brick in chunam is the excess in this item - Deduct saving of Bricks in chunam work allowed in the estimate 14-5-3
 actual excess Rs. 39-2-3

The 11 beams are those that are placed over the two abutments & 9 piers.

5. The cut stone facing to the cutwaters of the piers were also deemed necessary while in order construction - The difference between cut stone & brick in chunam caused the excess in this item. - Stone facing to - 107-15-11
 Deduct saving of brick work allowed in the estimate 17-9-3
 Actual excess Rs. 92-6-8

6. These alterations & additions arose as the work progressed, principally caused by the main alterations from a fixed Bridge to that of a platform, the sanction for which I had had demiofficial correspondence to refer to and as I could at no time say what the

the excess, if there should be any, would be, I hoped that a rapid completion of the Bridge would be a sufficient apology or the breach of the rule to apply for sanction which would undoubtedly have delayed the progress of the work and caused much deterioration in the chunam & material collected & loss to the contractors engaged.

7. If there should be any difficulty in covering the unavoidable excess from Government funds, I have no doubt the people in the neighbourhood would gladly subscribe or more by or the whole, if necessary, although they have already subscribed Rupees 1552-5-9.

I have seen?
 Signed J. M. Hawksworth
 Asst Engr 2^d Range
 (True copy)

Ans Sunday 21st Captains Office
 Asst Engr in ch of Supa Engr Office
 8th Division

007-1542/00.

[illegible]

✓ 1003633

Amended

during the preceding
months quoted (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12)

3000 3490-12.9 490-12.9 349-4-1

* Including Petty Cash which
was charged to me, &

At \$15.94 per acre of 122
of Revenue No. 530 of 3 August 1962

Office of the Post-Office, New York
 19th November 1868

To His
The Secretary to Government.

H. W. Department

S. Brock

Controller of U.S. Accounts

Indon date the 5th Jan'y 1869

Read the following

From The Controller of P. & Accounts. / A E No. 3533 Dated 19th Novr/1881

Under the explanation
afforded in these papers,
the Controller of Public Works
Accounts is authorized to
pass the excess expenditure
of Rs. 399-7-0 incurred
on the bridge over the
Varanuddy river, on the road
from Ten Kade to
-hasamoodrum in
Zimnecilly, Sri
The Govt

X
104
AA

*The Secretary to
the National Board
of Health*

March 19th November 1868

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Statement of objectionable
items in the Accounts of the
J. W. Hancock & Co. for
in ch. of H. & D. George & Son
which for May and June 1866,
requiring the Order of Court for
inserted under paragraph 89,
Section II of the Manual of
Accounts.

Mo 11-5th Decy 1869

C-268 Nov 1/68 Dd. 11 Nov 68

21

that the Range Officer
is to blame for not having
obtained the previous
sanction of the Superin-
tending Engineer to the
alterations carried
out by him in the
design of the bridge

(2)

W. H. H.

To
The S. Eng. &
Co. Contrs.
in A. C. & J. Co.
R. H. H.

Ac 4542

Oct. 11 1888

PUBLIC WORKS.

The Superintending Eng.
8th Division

Dated

1888

No. 2

G. O. 5th Jan'y 1889 No. 11.

No. 21-22

Bridge Commission
paying the Engrs
of Rs 399-7-0 m.
bridge over the
river on the road
to Ambasamudr
Tennally &c; and
considered the to be
having carried out
in the design of the
the Commission