

(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.	1598	Press
B.P. No.		Mts.
Dated	2 - 6	6875
		195

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
7th June 1875.*

Read the following letters:—

No. 158. From Colonel F. J. MOBERLY, R.E., Superintending Engineer, Chingleput, to Colonel G. W. WALKER, R.E., Secretary to Government, Public Works Department, dated Guindy, 18th February 1875, No. 3,933.

I HAVE the honor to submit, for the sanction of Government, a comparative statement for the new Artillery Barracks at Saint Thomas' Mount showing a net excess of Rupees 11,344 on the revised estimate sanctioned in G. O., No. 539, dated 28th February 1872, or Rupees 550 less than 5 per cent. The excess is due chiefly to the following causes:—

1stly, the omission of certain items in the sanctioned estimate which were not foreseen when it was prepared, but subsequently found absolutely necessary, as shown in the comparative statement, to the amount of Rupees 6,872;

2ndly, a lump sum only having been entered in the sanctioned estimate for "drainages," while the comparative statement provides each particular work separately, as found necessary, according to actual measurements, costing an additional sum of Rupees 1,750; and,

3rdly, additional work ordered by the Inspecting Engineer for Buildings in lavatories; the increased cost in the items of brick in chunam and wood-work alone is Rupees 1,844.

2. The increases and decreases in other sanctioned items compensate each other. In so large a work as the Artillery Barracks, which have been in progress for six years, such trifling differences generally occur in consequence of fluctuations in rates, deterioration of materials, &c., and do not, therefore, require special explanation.

3. The work is in fair progress, and there is every probability of the current year's allotment (25,610) being fully utilized before the 31st March 1875. The additional sum necessary to complete the project (Rupees 11,344), as shown in the comparative statement, will be required next year, and I solicit that it may be granted after 1st April next from the "Reserve."

No. 159. From the same Officer, dated Camp at Nedumaram, 5th May 1875, No. 423.

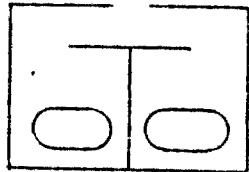
In reply to your memorandum, No. 390, dated 12th ultimo, I have the honor to report that the additions were made by the Executive Engineer under a misapprehension of my authority.

2. He pointed out to me defects in the plan or execution of the work, and proposed remedies which I agreed to verbally, under the idea that a supplemental estimate would be submitted. The Executive Engineer seeing that the cost would be within 5 per cent. of the estimated amount carried them out.

3. The brick in chunam is for thickening the walls of the reservoirs, which the Inspecting Engineer for Buildings thought weak for the pressure of the water. The teak-wood is to cover them in more completely; as also suggested by the Inspecting Engineer.

*Proceedings of the Madras Government, Public Works Department,
7th June 1875.*

4. On his visit he was satisfied that the tubs could not be put into the bath-rooms, which were sub-divided by T headed wells, and I desired that they should be replaced by batten doors.



5. The iron pipes are to carry the water to the cook-rooms.

6. The earthen pipes for removing water from the baths, &c., clear of the wells.

7. The extra well is necessary to cover the supply over so long a range.

8. The pumps I assented to under the feeling of general safety, approved by Government in Order, No. 1,024, of 21st April 1874.

9. If they had not been used we should have had to construct other means of raising water not provided in the original estimate.

No. 160.

ORDER THEREON, 7th June 1875, No. 1,593.

MILITARY WORKS, No. 5.

No. 57-M of 1868-69.

October 1868. A revised estimate, amounting to Rupees 2,37,885, was sanctioned by the same authority in March 1872, and the

No. 96 B. M. of 1871-72.

No. 539, dated 28th February 1872.

The original estimate for the Royal Artillery Barracks at St. Thomas' Mount amounted to Rupees 2,05,010, and was sanctioned by the Government of India in the same authority in March 1872, and the causes which led to the excess represented by the difference between these two estimates have been fully reviewed in the Order of Government marginally noted.

2. The District Engineer with his letter above recorded submits a comparative statement, which tends to show that the estimate last sanctioned will be exceeded by Rupees 11,344. This sum is somewhat less than 5 per cent. on the amount of the current estimate, and, as an excess on an original estimate, it might pass with little remark. Considering, however, that when the estimate of Rupees 2,37,885 for the whole of the buildings was presented to Government it was based on work already executed to about the value of Rupees 1,50,177, and that calculation had to be made only for what remained to be done to the then estimated value of about Rupees 87,738, the result as exhibited by the comparative statement is hardly satisfactory.

3. The excesses are stated to be due in part to omission in the first revised estimate, and an analysis of the comparative statement shows that they account for Rupees 6,669 of the excess. Those most prominent are noticed below :—

	RS.	A.	P.
Wheels and cotton ropes to fan-lights, &c.	662	8	0
Gymnasium room floor	574	2	0
Pointing to outer walls	686	8	0
Cutting jungle and clearing site, drainage	1,750	0	0
Arm-racks and punkahs	2,550	0	0

4. A further portion of the excess is due to the insufficiency of the rates or quantity of work provided for. The most noticeable instances were in the case of the granite flooring to the main building estimated to cost Rupees 34-3-7 per square, while

*Proceedings of the Madras Government, Public Works Department,
7th June 1875.*

the actual cost was for a considerable portion 40 Rupees per square, the excess on this item amounting to Rupees 753. Again, in teak work for the lower storey there was an excess of Rupees 663 owing to increase of rate. The above, with a number of smaller amounts on different items, account for Rupees 3,156 of the whole excess.

5. The District Engineer states that additional work to a considerable extent was ordered by the Inspecting Engineer for Buildings as it was found necessary, and it appears in the comparative statement chiefly under the following heads :—

	RS.
Brick in chunam	1,416
Teak-wood	428
Batten doors	190
Iron pipes	467
Earthen do.	207
Brick well	500
Force pumps	140
Fountain	270

The brick in chunam was used for thickening the walls of the reservoirs, which were considered to be too weak; the teak-wood was for covering them; the batten doors were adopted in the bath-rooms because the arrangement provided was defective; the iron pipes, earthen pipes, brick well and force pumps all seem to have appeared necessary in course of time.

6. The general conclusion derived from a review of the present estimate and the history of the building is that the details were not considered and worked out fully and carefully before the estimate was framed. The length of time during which the buildings have been under execution (they were commenced in 1868) has no doubt added to their cost. The outlay for petty superintendence is thereby largely increased, and the numerous changes in the staff engaged during so long a period is a serious evil. The scanty allotments annually placed at the disposal of the Government of this Presidency for Military works renders delay in their completion inevitable.

7. The revised estimate as now presented amounts to Rupees 2,46,920, but in stating the excess over the last revised estimate an addition is made of Rupees 2,309, which the District Engineer, in disregard of G. O., No. 1,864, of the 11th July 1874, has debited against the work as "loss in teak-wood," whereas he should on the contrary have credited it with the sale proceeds of the wood, amounting to Rupees 560. The estimate as corrected will, therefore, stand at Rupees 2,46,360, and is accordingly sanctioned.

8. The expenditure up to 31st March last was Rupees 2,37,852, so that a sum of Rupees 8,508 has to be provided in the current year. Had the District Engineer brought the work forward in his Budget lists separate provision for this excess might have been made. Under present circumstances, there is no alternative but to allot the amount from the Reserve at the disposal of Government for Minor Works, which is accordingly done. Colonel Moberly will, however, furnish an explanation of the omission referred to.

(True Extract.)

Major, R.E.,

Offg. Joint Secretary to Government.

To the Superintending Engineer, Chingleput.
Controller of Public Works Accounts.

Bd. S. T. Austin.
Spare Copies

N/A

No 3933

Supy Engrs Office Chingleput
Gundy 18th February 1875. 5
Dated 19th — do

From

The Superintending Engineer
Chingleput

To The Secretary to Government
Department Civil Works.

Enclosure
Comparative
Statement

Sir, I have the honor to submit for the sanction of Government a Comparative Statement for the new Artillery Barracks at Saint Thomas Mount showing a net excess of Rs 11344 on the revised Estimate sanctioned in G. O. No 539 dated 28th January 1872 or Rs 550 less than 5 per cent. The excess is due chiefly to the following causes.

1^{stly}. The omission of certain items in the sanctioned Estimate which were not foreseen when it was prepared, but subsequently found absolutely necessary as shown in the Comparative Statement to the amount of Rs 6872.

2^{ndly}. A lump sum only having been entered in the sanctioned estimate

for "chainages" while the Comparative Statement provides each particular work separately as found necessary according to actual measurements costing an additional sum of Rs 17,500.

2nd

Additional work ordered by the Inspecting Engrs for Buildings in Cantonments the increased cost in the items of Brick in Chumam and mud work alone is Rs 1,844.

2. The increases and decreases in other sanctioned items compensate each other. In so large a work as the Artillery Barracks, which have been in progress for 6 years, such trifling differences generally occur in consequence of fluctuations in rates, deterioration of materials &c and do not therefore require special explanation.

3. The work is in fair progress and there is every probability of the current year's allotment (25,000) being fully utilized before

the

the 31st March 1875. The additional sum necessary to complete the project (Rs 11,344 as shown in the Comparative Statement will be required next year and I solicit that it may be granted after 1st April next from the "Reserve".

I have the honor to be Sir

Your most obedient servant
H. Moberly Colonel R.E.
Supt Engrs Chingleput

No 420

Supg. Engrs Office, Chingleput
Camp, Madhavaram
Dated 10th May 1875.

From

The Superintending Engineer
Chingleput

To The Secretary to Government
D.P.H.

Sir,

In reply to your Memo No 390 dated 12th ultimo I have the honor to report that the additions were made by the Executive Engineer under a misapprehension of my authority.

2. He pointed out to me defects in the plan or execution of the work and proposed remedies which I agreed to verbally, under the idea that a supplemental estimate would be submitted. The Executive Engineer seeing that the cost would lie within 5 per cent of the estimated amount carried them out.

3. The brick in Chinnam is for thickening the walls of the reservoir which the Inspecting Engineer for buildings thought weak for the pressure of the water. The tea mood is to cover them in more completely as also suggested by the Inspecting Engineer.

4. On his visit he was satisfied that the tubs could not be put into bath rooms which were sub-divided.

P. M. 1875 Madhavaram

From The 11/4/75

The Supg Engrs

Chingleput

To The Secretary to Govt

1875

Dated 18th May 1875

Received 24th May 1875

Engrs Office, Chingleput

Submitted for

Government sanction

of the said works

Statement of the

anti-flooding

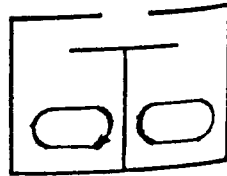
at all points

Memo No 390712 dated 11/5/75

No 158

G.O. No 169587-6-75

by T headed wells. and I desired
that they should be replaced by
batten doors.



5. The iron pipes are to carry the
water to the cook rooms.

6. The earthen pipes for removing
water from the bath & clear of the
wells.

7. The extra well is necessary
to cover the supply over so long a
range.

8. The pumps I assented to
under the feeling of general safety
approved by Government in Order
No 1024 of 21st April 1874.

9. If they had not been used
we should have had to construct
other means of raising water, not
provided in the original estimate.

I have the honor to be
Sir

Your most obedient servant

J. H. Moberly Colonel R. E.

Supg. Engrs. Chingleput

C. No 3144

The Under Secy wishes to know why the Royal Artillery Barracks at the Arsenal has been omitted from the current year's Budget. When a large sum, abmt Rs 8000, is required to complete the work.

The subject came before the court in Feb-
ruary 1849 and the
there is no 39 and

(Faint handwritten notes or bleed-through from another page)

Prof. W. J. S. S. S.
Chim. No. 3144

The Superintendent of Prisons

King's College

2/0,

Will send you to you!

P. H. Gage

Dec. 5

Dec. 11. } May 1875
Dec. 10 }

No. 4203

Reports that the
additions to the new
Royal Military
Academy at the Mount
were made by the
Executive Engineer
under a magnificent
don of his authority
P.O. No. 1598 of 7-6-75

22-29/5/75 (11-31/5/75)
20/6/75 11-6-75-76-77

1-157

From District Engineer—*one letter*
No. 423 of 5th May, 1875—
J

~~1. Letter from Range Officer, No. , date~~

~~1-Detailed Estimate.~~

Comparative State
-ment-

~~1-Abstract do.~~

~~SECRET~~

~~1. Specification Report~~

From Office—

Memor. No 390 of 12/4/72

Original sanction, No. 3399, date 29/02/68
for detailed estimate preparation.

Orders and Proceedings.	No.	Date.	Under P. W. D. G. O.
P. W. Department ...			No. Date. 5399 29/10/68
Public do. ...			537 28/2/72 540 28/2/72
Revenue do. ...			934 9/4/72
Financial do. ...			1024 21/4/74 8197
Mentary do. ...			8125 11/2/68

No. II.—PARTICULARS FROM
ESTIMATES.

Main Budget Head to which chargeable

Imperial

Title and purpose of the work as given by
District Engineer.

*Completing
Royal Artillery Barracks
at Thomas Mound*

Original sanction for the preparation of the
detailed estimate. *11th Dec. 1871 No. 3399 of 1871*

(Date and number in both sanctioning and Public Works
Department.)

11th Dec. 1871 No. 779 of 1871

Amount of original detailed estimate. *205,010*

Less Revised do 237,885

Number and date of sanction and endorse-
ment in Public Works Department.

9th April 1872 No. 934

Amount of revised estimate ... *249,229*

Do. of original do. ... *237,885*

Excess over do. do. ... *11,344*

Budget Head to which the work is charge-
able, in detail.

Military Works

Amount of current year's allotment ... *Nil*

Do. expended in previous years *up to*
31st March 1875 237,882

Total *237,882*

Balance to be provided ... *8,475*

Funds can be made available during the
current year.

*Yes from Reserve
Military*

Brought forward as urgent.

(Yes or no, and if so state by who.)

Yes By Supy. Engr.

New Artillery Barracks

What is the understanding
this draft to me
with out the blanks
in para 6 filled in
and with out the
paper where the
information has to
be obtained - The
Upper Barracks project
of the Mr. H. G. Lamb
being reported upon
& is contained in Ser.
No. of 1867 & I think
subsequently - I am
yours
30th Dec. 1871

New Artillery Barr
Excess.

Upper Stairs.	Lower Stairs.	Alterations or additions ordered by Government	Rates on Inhabitants originally in Original Estimate.	Omissions in Original Estimate.	Total.
			48 ..	252 8 ..	
			4 8 10	16 10 3	
			3753 3 7	126 9 ..	
			345 ..	447 9 ..	
			18 3 ..	" ..	
			3 ..	" ..	
			30 3 7	" ..	
			46 2 ..	" ..	
			4 8 ..	" ..	
			23 ..	" ..	
			30 15 ..	" ..	2150 .. 3
			49 8 ..	410 ..	
			12 8 11	64 ..	
			144 1 10	" ..	
			1 12 4	" ..	
			24 4 ..	" ..	
			663 1 6	" ..	
			70 10 ..	" ..	

Under Secy. G. Genl. Davis
Wagon Pass

- 1 — Brick in Chumam to 2 Karakins
 2 — Brick with 8 ft. diam. 736 ft. dist.
 3 — Flowering with gravel: close to main building
 4 — Sea-kind road through the
 5 — (Chumam) Chumam, Chumam
 6 — Brick in Chumam to 4 Karakins
 7 — Brick in Chumam to main building
 8 — Brick in Chumam to main building

17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54
55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72
73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108
109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126
127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144
145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162
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307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324
325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342
343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360
361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378
379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396
397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414
415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432

41

Reading -

Branch.

10

Exco.

- January*

May 1863
Anda deo G. Sant. Davis

10 By the same Authority in No. 96 Bm
March 1872 and the Census of 1871-72.
which led to the excess re-
presented by the difference
between these two estimates
have been fully reviewed
in the Order of Govt.
marginally noted.

No. 539 dated 28th Feby. 1872.

2. The District
Engineer with his letter
above recorded submits
a comparative statement
which tends to show that
the estimate last sanctioned
will be exceeded by Rs
11,344. This sum is some-
what less than 5 per
cent on the amount of
the current estimate and
as an excess on an original
estimate it might pass
with

23
with little remark. Con-
sidering however that when
the estimate of P. & S. was
2,37,885 for the whole of
the buildings was pre-
sented to Govt. it was
based on work already
executed to about the
value of Rs 1,50,177 and
that calculation had to
be made only for what
remained to be done to
the then estimated
value of about Rs 87,738. The result as
exhibited by the com-
parative statement is
hardly satisfactory.
3. The excesses are
stated to be due in part
to omission in the first
revised

revised estimate and
an Analysis of the Com-
parative statement shows
that they account for
Rs 666 of the excep.
Those most prominent are
noticed below.

Wheels & Cotton ropes to
fan lights &c — Rs 8-0
Gymnasium room floor — 574-2-0
Painting to outer walls — 688-5-0
Cutting jungle & clearing
site, drainage — 1750-0-0
Arm racks & Pumbaks — 2550-0-0

4. A further portion
of the excep is due to the
insufficiency of the rates
or quantity of work pro-
vided for. The most
noticeable instances were
in the case of the granite
flooring to the main building
estimated

25
estimated to cost Rs per
34-3-7 per square or
while the actual cost
was for a considerable portion 40 Rs
per square. The excep
on this item amounting
to Rs 753. Again
instead work for the
lower story there was
an excep of Rs 663
owing to increase of
rate. The above with
a number of smaller
amounts on different
items account for Rs
3156 of the whole excep.

5. The District
Engineer states that
additional work to a
considerable extent was
ordered by the Inspecting
Engineer

Engineer for buildings as
it was found necessary
and it appears in the
Comparative Statement
chiefly under the follow-
ing heads.

Brick m Churnam	1410
Teak wood	428
Batten doors	190
Iron pipes	467
Earthen do	207
Brick well	500
Force pumps	140
Fountain	270

The brick m Churnam
was used for thickening
the walls of the reservoirs
which were considered
to be too small. The
teak wood was for cover-
ing them. The batten
doors were adopted in
the

the bath rooms because ²⁷ the
arrangement pro-
vided was defective. The
iron pipes, earthen
pipes, brick well and
force pumps all seem
to have appeared in
necessary in course of
time

The general
conclusion derived from
a review of the present
estimate and the history
of the building is that
the details were not
considered and worked
out fully and carefully
before the estimate was
framed. The length of
time during which the
buildings have been
under

under execution (they were commenced in 1868) has no doubt added to their cost. The outlay for petty superintendence is thereby largely increased and the numerous changes in the staff engaged during so long a period is a serious evil. The scanty allotments annually placed at the disposal of the Govt of this Presidency for Military works renders delay in their completion inevitable.

7. The revised estimate as now presented amounts to Rs 24,09,20 but in stating the excess over the

the last revised estimate an addition is made of Rs 2309 which the District Engineer in disregard of G.O. 1804 of the 11th July 1874 has debited against the work as "Lap in Teak wood," whereas he should on the contrary have credited it with the sale proceeds of the wood amounting to Rs 500. The estimate as corrected will therefore stand at Rs 24,03,00 and is accordingly sanctioned.

8. The expenditure up to 31st March last was Rs 23,78,52 so that a sum of Rs 84,75 has to be

R. H. H.

be provided in the current
year. Had the District
Engineer brought the
work forward in his
budget lists separate
provision for this except
for, might have been made
Under present circumstances
there is no alternative
but to allot the amount
from the Reserve at the
disposal of Government
for Minor Works - which
is accordingly done. Colonel
Moberly will however furnish
an explanation of the omission
referred to.

Ans

Suppl. Hq. Chengtse. With Comparative Statement Feb. 1897.
Cm. W. C. ✓ 2-7-95
S. C. Repd - 22-6-95

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158-160

1144
3144

of 1875 Madras.
PUBLIC WORKS.

Super.
Chingleput

20/7

Encl.

June No. 4577

No. 158-160

Artillery Barrack,
Thomas M.

ing orders on
comparative
ment of the
tted for sanction
Superintending
Chingleput.