

Public Works (1898) Department.

G.O., No. 1725 W

DATED 7 July '98

[Despatch Abstract.]

9/7/98
Taluk office at Talhonda : Revised
estimate of Rs 32,470 for constructing
a first class ——— in the Vizagapatnam
Sh. San. line with remarks.

Revised estimate of Rs. 32,470 for constructing a first-class —, in the Vizagapatam district, sanctioned with remarks.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

READ—the following papers :—

From W. C. DEMORGAN, Esq., M.I.C.E., Executive Engineer in charge, I Circle, to the Chief Engineer, Public Works Department, dated Waltair, 23rd May 1898, No. 170 V.Z.

I have the honour to submit herewith a revised estimate,* together with a comparative statement, for constructing a Taluk office with out-houses at Palkonda, in the Vizagapatam division, and to request that sanction of Government may be obtained to the same.

2. The comparative statement, prepared by the Executive Engineer, and my note thereon accompanying the estimate, sufficiently explain the causes of excess on each item.

3. The original estimate, amounting to Rs. 27,420, was sanctioned in G.O., No. 1572 W., dated 25th June 1894, and the amount of excess that now requires sanction is Rs. 4,940.

Note by the Chief Engineer, Public Works Department.

The revised estimate of Rs. 32,470 for constructing a taluk cutcherry at Palkonda, Vizagapatam district, involves an excess of Rs. 4,940 over the original estimate of Rs. 27,420 sanctioned in G.O., No. 1572 W., dated 25th June 1894. The various items of excess are exhibited and accounted for in the comparative statement and report submitted by the Superintending Engineer, I Circle, and are made up as follows :—

	Rs.
(a) Increase in rates	1,843
(b) Increase due to deviations	5,257
(c) Increase due to additional works found necessary	1,480
	<hr/>
	8,580
Deduct—Savings due to deviations	3,640
	<hr/>
Total excess	4,940

2. When the original estimate was prepared the Palkonda taluk had only been recently taken over by Government from Messrs. Arbuthnot and Co., and correct data regarding rates and localities, where good building materials were available, did not exist. To this cause is mainly due the excess for which sanction is now applied for. The rates, however, provided in the original estimate were, in many cases, absurdly low, and the divisional schedule should now be brought up to date if this has not already been done.

3. Items (a) and (b) of the excesses above noticed in paragraph 1 are principally due to suitable lime and stone not being procurable locally, as was believed to be the case when the original estimate was prepared and having eventually, owing to the inferior quality of the local building materials, to be carted respectively from 6 miles and 40 miles off.

4. The increase under item (c) was unavoidable and was due to the necessity for removing and reconstructing portions of the building which had cracked owing to movement of the soil on which it was built as explained by Mr. Allen in letter No. 1108, dated 17th June 1897. This occurrence, or the probability of it, could not have been foreseen, and the pressure originally allowed on foundations, viz., 1,300 lb. per square foot is, as pointed out by Mr. Allen very moderate, and is less than half of what is usually permissible, 1 to 1½ tons per square foot being generally allowed for ordinary firm earth.

5. With these remarks the revised estimate is recommended for the sanction of Government.

(Signed) W. B. DEWINTON,
Chief Engineer.

17th June 1898.

ORDER—No. 1725 W., dated 7th July 1898.

The revised estimate, amounting to Rs. 32,470, for constructing a first-class Taluk office at Palkonda, in the Vizagapatam district, is sanctioned in supersession of the original estimate of Rs. 27,420 sanctioned in G.O., No. 1572 W., dated 25th June 1894.

2. The probable outlay incurred on the work to end of 1897-98 amounts to Rs. 22,554. The balance of estimate will be provided after the statements of requirements for incomplete works have been disposed of.

3. The Superintending Engineer's attention is called to the extreme inadequacy of many of the rates provided in the original estimate, and he is requested to see that all schedules of rates in his circle are brought accurately up to date.

4. The sanction accorded in paragraph 1 has been registered as Provincial No. 36 W. of 1898-99, and classified as Civil Buildings—Original Works.

(True Extract.)

Under Secretary to Government.

To the Superintending Engineer, I Circle, with twelve enclosures.
" Examiner, Public Works Accounts.
" Revenue Department.

Papers to be read in Proceedings:—

Again G.O., dated 189 , No.

Again G.O., dated 189 , No.

Current No. 4606 of 1898, dated 23rd May 1898, from The S. E. I Circle

" " " 189 , " , "

" " " 189 , " , "

Note by the Chief Engineer, P. W. D., of 17.6.98

ORDER.

The Secy to Govt. Revenue Dept.
for favour of e. i.

No 1725 W of 7.7.98

The revised estimate, amounting to Rs 32,470, for constructing a first class Taluk Office at Palkunda, in the Vizagapatam district, is sanctioned in supersession of the original estimate of Rs 27,420 sanctioned in G. O. No 1572 W, dated 25th June, 1894.

The probable outlay incurred on the work to end of 1897-98, amounts to Rs 22,554. The balance of estimate will be provided ^{after} the statements of requirements for incomplete works ^{have been} disposed of.

The sanction accorded in para 1 has been registered as Provincial No 36 W of 1898-99 and classified as Civil Buildings Original Works.

APK

14.6.98.

Cur

17.6.98

3. The Sub Engineer's attention is called to the extreme inaccuracy of many of the rates provided in the original estimate, & he is requested to see that all schedules of rates in his Circle are brought accurate up to date.

The S. E. I Circle with 12 enclosures
Examd. P. W. Accts.
Revenue Dept.

[P. W. 4.
500-24-3-98.]

P. T. G.

P. K. S.

2. 18.6.98 H. E. 28.6.98 R. S. 7.98.

Note. The estimate is dealt with in the accompanying technical note. The causes of excess are summarized in the Chief Engineer's note ~~for~~ read above.

ACK
14.6.95.

C. S.
P.K.S.

W. S. 16.80

note by E.W.

The revised estimate of Rs 32,470 for constructing a lakey butcherry at Palakanda, Vijayapattani district, involves an excess of Rs 4,940 over the original estimate of Rs 27,420 sanctioned in G.O. No 1532 W, dated 25 June, 1894, and the various items of excess are exhibited and accounted for in the comparative statement & Report submitted by Mr P. S. Rick, and are made up as follows:-

(a) Increase in rate -	1843
(b) Increase due to dimensions -	525
(c) Increase due to additional work found necessary	1480
Deduct savings due to	8580
Deduct savings due to dimensions	2640
Total excess	4940

2. When the original estimate was prepared, the Palakanda Lakey had only been roughly taken over by Mr. A. Subramaniam & Co, and correct data regarding rates, and localities where good building materials were available, did not exist. To

The rates, however, provided in the original estimate were in many cases above of the original schedule. This cause is mainly due to the fact that the original estimate was prepared before the rates had been brought up to date, of this has not already been done.

3. Items (a) and (b) of the

excess above noticed in para 1, are principally due to miscalculation & stand not being properly located, as was believed to be the case when the original estimate was prepared, and having resulted, owing to the inferior quality of the local material, the cost respectively from 6 miles & 40 miles off.

4. The increase under item 61 was unavoidable, & was due to the necessity for moving & reconstructing portions of the building which had cracked owing to ^{movement of the soil in which it was built} ~~less than~~ causes, as explained by Mr. Allen in letter No 1108, dated 17 June/97. This occurrence, or the probability of it, could not have been foreseen, & the ^{original} ~~present~~ allowance on foundations, viz 1300 lbs per sq. ft. is, as limited with Mr. Allen very moderate, & is ~~considerably~~ less than half of what is usually permissible, 1 to 1 1/2 tons per sq. ft. being usually allowed for ordinary firm earth.

5. With these remarks, the revised estimate is recommended for the sanction of Govt.

Atk

17-6-98

W. H. Allen
17-6-98
G. W.

C. No. 4606

P. W. Secretariat.

Note by Budget Section.

Work consisting a first-class Taluk Office at Palkonda, Vizagapet.

Fund				
Service Head	...	...	Provincial	
Departmental Head	...	...	Civil Buildings	
Amount of Estimate	...	...	Original Works	
revised				
Rs. 32,470	...	...	Original estimate - Rs 27,420	
Probable Expenditure in previous years	...	...	" 22,554	
Allotment in current year	...	...	"	
Balance required to complete	...	...	" 9,916	
Total Rs	...	...	32,470	

Note of available Funds.

The statements of requirements for incomplete works are being compiled and when they are disposed of, the amount required for this work will be provided.

P. K. S.
7/6/98

Current No. 4606

Letter No. 170 KZ.

Dated. 23rd May 1898From the Executive Engineer in
charge I Circle.

NOTE BY TECHNICAL SECTION.

Name of work Revised Estimate
for constructing a Talag
Cutcheri at Palakonda
Vizagapatam Division
Est Rs 32,470.

The Executive Engineer in
charge of I Circle submits
for sanction of Govt. a re-
vised estimate with con-
servation statement for
Rs 32,470.

The original estimate amou-
nting to Rs 27,420. revised
in T. No. dated 5.6.94. was
sanctioned in G. O. No 1572
W dated 25.6.94, and the
amount of Rs 4940. that now
requires sanction is Rs 4,940.
When Mr. Ford, Executive
Engineer, prepared the orig-
inal estimate very little
was known by the P. W. D.
about the Palakonda Talag,
which had only been recently
taken over by Govt. from
Messrs Abbott & Co.

Note by Budget Section.

H.P.
Please send down to Madras,
as I have no time to do this
before leaving City tomorrow

APK
8-6-98.

DW

Order sent

CR
7.6.98.

Madras
10/6/98.

There were no data on which to frame rates, and the positions of quarries were not determined. It was afterwards found that local building stone and lime-stones were not fit to be used and the increase in rates is principally due to the fact that suitable material had to be carted from a distance. As soon as the Estimate was sanctioned the then Executive Engineer Mr. Hancock pointed out that the rates were insufficient, but it was hoped that the increased rates allowed for 'Rubble in Mortar' and 'Concrete in Mortar' would still bring the original Estimate within 5 per cent of the Original Estimate, but it has been found otherwise.

The necessity for a revised Estimate was urged by each Executive Engineer since the work was commenced.

The Estimate now submitted provides rates at which this Department can do the work, and it is only left to note that the departmental

rates in such places as Palaccondah allow a very narrow margin of profit to a Contractor.

Comparative Statement

The following increase is due to excess in rates.

I. Excavating foundations	Rs. Rs.
and filling in —	27-0
II Concrete broken Stone in Chumam.	862-
III. Flat arch work —	7-0
IV. Circular arch work —	1-0
V. Cut stone in Mortar	94-0
from slated door with iron frame	30-0
— do — in Jail wards.	120-0
⊕ Flooring with Slab Stones laid on concrete & pointed with Portland Cement	613-0
Total Rs.	1754-0

Lathier attached.

Excavating foundation —	1-0
Concrete broken Stone in Mortar	47-0
Plastering 2 coats Chumam including Whitewashing	5-0
Quarry fee on materials	10-0
Rs.	63-0

Cook house attached.

Excavating foundation —	1-0
Concrete broken Stone in Mortar	22-0
Plastering 2 coats including Whitewashing	1-0
Cut stone in Chumam	2-0
Rs.	26-0

Total Rs. 1843-0

Causes of Excess.

I orig^l rate Rs. 2-5-0 per 1000 Cub. Ft.
 Rev^d rate Rs. 3-0-0 —
 difference due to site originally selected being ordinary Earth, Hard subsequently found to be hard yellow clay with limestone - average depth 7 feet.

II. N_2 rate 11.6. 8.0 per 100 Cuck 75
Revised rate 11.10.10.0

difference due to sanctioned rate
being taken from general schedule
In 1892-93 without detailed
data, and revised rate being
based on data prepared in
1895 from local information
by overseer V. Vaidinadha Muthu.
S.E. sanctioned an increase
to Rs 9-2-0 but on commencing
work in 1896 local lime was
found to be inferior - good lime
not being found nearer than
6 miles away.

I. orig. rate 17-12-0 per 100 Cwt 74
Revised rate 18-8-0 _____

II. Oyr. rate 18-0-0
Revised rate 18-12-0

Revised rate
III. org. rate 0-9-0 per Cub Foot
Revised rate 0-12-0

8 { orig rate 1-12-0 per 1/2 hr
5 {
9 { Review rate 2-8-0 —————
C +

9 Revised Rate
due to an alteration in Estimate.
details - T 2 cat 18-8-0 per 1000

details -
 ④ Flooring sanctioned rate 18-8-0 per 1000 ft.
 Revised rate 26-4-0

Sanctioned rate was provided in the general schedule for 1892-93 without detailed data - when work was commenced food stores could

not be found in the microscope.
hood. Mr. Hawkins then S. D. O.
therefore ordered the Contractor
to cast Stone from a quarry
near Virginia for 40 miles
away. Increase due to casting
Stone 40 miles since 6 miles.

1/2 6.8.0 is an
absolutely low rate for
concrete

W
H. H. H. H.
17. 6. 96

x at lbs 11 an almost horizontal
verte. lbs 12-5. the verte
now provided is very
remarkable

Handwritten: 17.6.90

Increase due to deviations -

I. Lyscaoting foundation & filling in	84 - 0
II. Concrete-broken stone in Chumam	33 - 0
III. Roughstone work 1 st sort	3 586 - 0
IV. Steel beams	185 - 0
V. Terraced roofing	479 - 0
Plastering with Chumam 2 Coats	47 - 0
Pointing with turkie	14 - 0
Painting 3 Coats Carson's oak paint	66 - 0
□ Clearing site	75 - 0
Quarry fee on materials	400 - 0
	<u>Total 4969 -</u>

Petty supervision	_____	29
Contingencies	_____	59
		<u>Mr. 88</u>

Latrine
Rough stone in mortar 1st Sort 65-0

Cook-house
Rubble 1st Sort 136-0

W^{al} R^s 5257-0

Cause of deviation.

- I. Excess quantity 2,800 Cub Ft.
at 3 1/2 per 1000 Cub Ft.
- II. Excess quantity 3.10 Cub Ft. at
10 - 10 - 0 per 100 Cub Ft.
- III. Original Est. provides brick
in mortar - Revised Estimate
substitutes Stone for Bricks. &
lime has to be carted 6 miles.
- IV. Original Estimate provided
wooden beams but revised
Estimate Steel Beams.
- V. Terraed roofing instead
of tiled roof.

Mastering - decreased in quantity
and increased rate from
Rs 2.5.6 to Rs 2.10-0.

Mastering with Surki Mortar
increased quantity 550 m. ft.

Painting doors & window doors -
increased in quantity 2100 m. ft.

Clearing site - orig amount inadequate, increased amount necessary.

Quarry fee for materials necessary.

Contingencies & supervision necessary.

Success in Latrine & Cook House

as explained above for main

building.

Stems not provided for in Orig Est.

Removing & re-constructing cracked portions

Dismanthling walls &c. 62-0

Concrete in Mortar 135-0

Rough stone in Mortar 368-0

Brick and work 15-0

Cut stone in Mortar 76-0

Pointing with tucki 25-0

Removing earth from rooms 46-0

Digging a trench round building 22-0

Excavating drain &c 40-0

Filling the drain 24-0

Sand filling in rooms & trenches 472-0

Dry Stone backing 109-0

Refixing doors 10-0

Scaffolding 10-0

Loading Ventilators &c 10-0

Petty supervision 76-0

Contingencies 90-0

Total Rs 1590-0

Deduct Value of Stone available

from old work 110-0

Total Rs 1480-0

A sketch of a portion of the

Palcondah Taluk Cutcheri

showing the walls cracked,

as also section of the founda-

tations of the cracked walls

is forwarded. Mr. Allen

These cracks were
evidently due to expansion
& contraction of the clay
in wh. the building was
built. the weight placed
on it was very small

Rs 17.6.90

I don't think the soil
under floors can reverse
the weakness attributed to
it by Mr. Allen, which
is certainly advisable to
remove it for health
sake.

* This soil is sand
to go down to great
depth. Mr. Allen
is correct.

Rs 17.6.90

the three Executive Engineers
reported on the matter in letter
No 1108 dated 17-6-97 and
made certain proposals for
remedying the damaged portions
which were approved by
Mr. Larnier Supt Engineer,
and duly carried out.

A copy of Mr. Allen's letter
is attached - the explanation
is worthy of consideration,
local movement being too often
omitted as a possible factor
in failures of buildings.

The excess expenditure appears
to have been unavoidable,
but points to the necessity
of trial pits being invariably
dug on proposed sites of
buildings and soil carefully
examined before an estimate
is prepared.

Savings due to deviations.

4. Savings in Brick & Mortar 2376-0

8. Teak wood wrought & put up 423-0

9. Wrought iron work 23-0

11. Tiled roofing including roofs 579-0

2 coats wood oiling 46-0

Line shafts in valleys 48-0

Cut stone to receive water from valleys 7-0

Total Rs 3502-0

Latrine.

Brick in mortar 13-0

Contingencies 15-0

Cook House.

Brick in mortar 110-0

Contingencies & supervision 9-0

Total Rs 3649

Cause of Savings.

- a Substitution of Stone.
- b Substitution of Steel beams in place of wooden ones.
- c Substitution of terraced roof in place of tiled roof.
- d Roofing - Quantity reduced from 23,000 to 183.50 sq ft.
- e Plaster. Quantity reduced from 130 to 874 M².
- f Limestone. Quantity reduced from 6 to 4 Cub M.
- g Lath & Plaster as above.

Abstract.

Increase due to 24 cers in rates	R ^s 1843
Increase due to deviations	5257
Items not provided for in Orig. Est.	1480
	<u>Total R^s - 8580</u>
Savings due to deviations	R ^s 3640
	<u>Total 24 cers - R^s 4940</u>

Rates. Fair - detailed data attached.

A.R.

12.6.98.

M.H.

6.6.98

The schedule of rates in
Braj. should be carefully
revised & put already
done when
12.6.98

Public Works (1898) Department.

CURRENT No. 4606

From W. De Morgan Esquire
Executive Engineer in charge
I Cich

Order

No. 170 V.2

Dated 23rd May 1898

Received

Registered } 30.5.98

Enclosures 12 (including 2 sketches attached to 12)

Spare copies

SUBJECT.

Palakonda - Revised Estimate amounting to Rs 32,470 for constructing a Taluk Cutcherry with out-houses at — Submitting a — and requesting to obtain the sanction of Government to the same for the reasons given in the note attached to this.

Sanctioned
1/6/98

O. L. S. 164

Sent again 14.6.98

FURTHER PAPERS.

S. E. L. 500--15-1-98.

No. 170 Vz

FROM

W. C. De Morgan Esq. M. I. C. E.
Executive
~~SUPERINTENDING~~ ENGINEER, in Charge

FIRST CIRCLE.

THE CHIEF ENGINEER

PUBLIC WORKS DEPARTMENT.

WALTAIR, 23rd May

1898.

Camp.

Despd 27th May 1898

SIR.

Enclosures, 8 + 2 = 10 To

1 Revised Estimate
of the Cutchery building

1 Do of the Latrine

1 Do Estimate of the Cook house

1 Estimate for removing and
reconstructing the cracked
portins of the Cutchery

1 Data sheet

1 Comparative statement

1 note to accompany the Comparative statement

3 Copy of Mr. Allen's letter with its 2 Enclosures
in original (6 to be returned)

6 x

for Rs. 32,470 - with

I have the honor to submit here
- with, a revised estimate together with a
comparative statement for constructing a
Taluq office with out-houses at Palcondah
in the Vizagapatam Division, and to request
that sanction of Government may be ob-
-tained to the same.

2 The comparative statement, prepared by the Executive Engineer, and my note thereon accompanying the Estimate sufficiently explain the cause of Excess on each item.

3 The original Estimate amounting to Rs 27,420 was sanctioned in G.O no. 1572 N of 25.6.94, and the amount of Excess that requires sanction is Rs 4940.

I have the honor to
Sir,

Your most obedient
Wm. A. R.

W. M. Norwood
Executive Engineer

28-26/5