

The revised estimate, amounting to Rs. 32,000, for constructing a —, sanctioned.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads,
Civil Works.

READ—the following papers:—

From Lieutenant-Colonel W. L. C. BADDELEY, R.E., Superintending Engineer, III Circle, to the Chief Engineer, Public Works Department, dated Bellary, 28th July 1899, No. 2781 W.

I have the honour to submit for sanction a revised estimate of Rs. 32,000 for constructing a Police office at Kurnool on the standard plan.

2. The attached note explains the reason for the excess of Rs. 6,400 over the estimate of Rs. 25,600 sanctioned in G.O., No. 1390 W. of 1st May 1896.

3. The necessity for a revised estimate was foreseen a year ago, but owing to the amount of work involved in its preparation, as can be seen from the comparative statement, the Executive Engineer has been unable to submit the revised estimate until now.

From M.R.Ry. S. A. SUBRAHMANYA AIYAR Avargal, Executive Engineer, Kistna Western Division, to the Chief Engineer, Public Works Department (through the Superintending Engineer, II Circle), dated 31st August 1899, No. 272 S.

With reference to your memo., No. 3517 C., dated 17th instant, I have the honour to explain as follows:—

(a) *Chisel-dressed ashlar*.—I do not remember to have ordered this deviation. This item was probably executed after I delivered over charge.

(b) *Flooring stone from Jangalapalli*.—Having no records with me I have to speak altogether from memory. This stone was in much larger sizes than the local Kurnool stone. It had therefore a much smaller length of edges to dress. Its edges were regular and easier dressed. A quantity of it was already by the canal side at one of the locks below Nandyal collected perhaps for some other work given up and had only to be boated up to Kurnool. The cost of boating long distances over 100 miles is 3 pies per cubic yard per mile. The distance to Kurnool was, I believe, about 120 miles and allowing even 4 pies a mile per cubic yard, the boatage was to cost only 480 pies or Rs. 2-8-0 per cubic yard. The cartage to and from the canal banks of this stone already collected and of other stone yet to be collected was perhaps a trifle less than the cartage of the local stone to site. A cubic yard of this stone, being from 2½" to 3" thick would cover 1 square of floor. By the use of Jangalapalli stone, therefore, the rate for flooring per square would be increased Rs. 2-8-0 on account of boatage, but against this excess there was sure to be a saving of Rs. 1-8-0 in respect of edge dressing and pointing, as there was a smaller length of naturally better edges to dress and therefore also of joints to point with cement. The flooring work was not done in my time and I do not now know if even the stone was brought to site. I do not remember what stone the estimate provided, but the foregoing calculations show that the excess anticipated, when I ordered Jangalapalli stone to be used, was about Re. 1 per square only. To justify this excess, and even a somewhat larger excess, there was already some stone which if not used, would not be used at all for a long time. The stone itself was superior. For the sake of uniformity of appearance, all the stone was to be from Jangalapalli or none at all.

No. 415 W.

Forwarded to the Chief Engineer, Public Works Department, with reference to his No. 3517 C., dated 17th August 1899.

(Signed) W. M. ELLIS, Major, R.E.,
Suptg. Engineer, II Circle.

2nd September 1899.

From Lieutenant-Colonel W. L. C. BADDELEY, R.E., Superintending Engineer, III Circle, Bellary, to the Chief Engineer, Public Works Department, Madras, dated 6th October 1899, No. 3691 W.

In reference to your No. 3517 C. of 17th August 1899, I have the honour to forward a copy of letter No. 2758 of 27th September 1899 from the Executive Engineer, Kurnool Division, to which is attached Mr. Taylor's explanation.

2. As regards paragraph 2 (a) of your memorandum, I must point out that, when you were Superintending Engineer of the Circle, you approved of the class of masonry that was being done in the Police office, and between the date of your inspection in April 1897 and my first inspection in August 1898 there was no reason for the officers on the spot to make any change in the quality of the masonry, even had it been possible to do so without destroying the appearance of the building.

3. I understand that this building was commenced departmentally in order to ascertain the rates at which high class masonry could be turned out. This is not the only instance in this circle in which the endeavour to obtain high class work has resulted in the estimate being exceeded.

4. I joined the Circle in the middle of May 1898, and I find the following in my inspection notes:—

New Police Office, Kurnool, 8th August 1898.

"A very handsome building of the latest type design, built of lime stone, and approaching ashlar work in quality. The estimate only provides for coursed rubble, but the work was commenced departmentally and the class of work could not be changed when it was continued by piece-work." . . . "The estimate will be largely exceeded and a revised one is being prepared with full explanation for excesses. The work throughout is very good. The work has been stopped pending the submission of the revised estimate."

5. For 2 (b) explanation has been given by three officers and as regards that given by M.R.Ry. S. A. Subrahmanya Aiyar Avargal, I return it in original with a copy of Mr. Johnston's letter No. 2800 of 28th September 1899.

6. Touching 2 (c) the Executive Engineer, Kurnool, in his No. 5773, of 29th January 1898, reported that nine beams had been received from the Bezwada shops and that seven had been rejected for cracks. He also recommended the use of steel girders in place of teak beams and the local purchase of these was sanctioned in G.O., No. 1248 W., of 17th May 1898.

7. I remember seeing some of the beams referred to in the Bezwada shops and as the ends had cracked I ordered iron bands to be shrunk on. This was done, but the beams must have cracked still more before receipt in Kurnool, otherwise Mr. Johnston would not have rejected them.

The rejected beams were cut up to replace scantlings that had been rejected by Mr. Johnston (*vide* copy of letter No. 6373 of 25th February 1898, and list enclosed). These were, I believe, also supplied by the Bezwada shops.

8. It is impossible at this stage to fix the responsibility for the rejected scantlings altogether upon the Bezwada shops, as only the soundest and most thoroughly-seasoned wood will stand exposure to the sun, and as pointed out the cracks that commenced in the Bezwada shops may have increased afterwards owing to exposure on the railway or while at the work-site in Kurnool.

9. As a matter of fact scarcely any properly-seasoned wood can be used in the department as there are no depots where scantlings are kept for the necessary length of time and ordinarily no arrangements can be made for purchasing timber until funds are allotted for a building.

10. The concluding paragraph of Mr. Johnston's letter No. 2800, of 28th September 1899, merits careful consideration. So much depends upon the initial accounts; they are the foundation upon which the whole scheme of accounts is based; but the agency to prepare them is of the humblest description and usually insufficient as regards numbers and inefficient in quality. If arrangements could be made for strengthening Sub-Divisional officers and for peripatetic accountants to give instructions to clerks under detached officers and in Sub-division offices, a great deal of good would result.

11. In conclusion, I must point out that the wastage in the use of the Kurnool lime stone for good masonry is very great, about 37 per cent.

Note by the Chief Engineer, Public Works Department.

With his above-quoted letter the Superintending Engineer, III Circle, submits a revised estimate for Rs. 32,000 for constructing a Police office at Kurnool. The original estimate for Rs. 25,600 was sanctioned in G.O., No. 1390, dated 1st May 1896. The work was commenced in June 1896 and carried on by departmental agency until February 1898. The work was practically stopped during the famine of 1896-97. As the cost of the masonry work done by departmental agency was in excess of the estimated rates, the remainder of the work was, after January 1898, executed by piece-work. The revised estimate exceeds the original by 25 per cent. and the excesses may be grouped as follows:—

The revised estimate exceeds the original by 25 per cent. and the excesses may be grouped as follows:—

(a) Increase of rate	Rs.
(b) Deviations in design	2,616
(c) Do. on materials	288
(d) Errors and omissions	1,016
(e) New provisions	241
(f) Loss on timber	2,305
(g) General charges	625
	126
Total	7,217
Deduct savings	—817
	<hr/> 6,400

of these it is only necessary to consider (a), (c), (e) and (f)—

(a) *Increase of rate.*—The principal cause of excess is in the sub-head chisel-dressed ashlar which was executed at a rate of Rs. 27-12-0 against Rs. 17-8-0 and Rs. 18 for coursed rubble provided in the estimate. In this case the class of work executed is far better than that provided in the estimate and the deviation may be passed with the remark that the Executive Engineer should not have incurred the additional expenditure without distinct authority for so doing. He states that the Superintending Engineer approved of the class of work when in progress, but there is nothing to show that attention was called to the fact that its cost far exceeded the estimated rate.

(c) The excess in this case is due to steel and

(c) The excess in this case is due to steel girders being substituted for teak beams and to the fact that slabs for flooring were obtained from a more distant quarry than was anticipated when the estimate was framed. The former alteration was an undoubted advantage. In the latter case, serviceable slabs could have been obtained closer, but unfortunately all of the officers employed on the building had lately joined the division and were much occupied with famine work. The unnecessary expenditure is therefore excusable.

(e) The principal item here is the provision of a compound wall and gate which is reported to be very necessary.

(f) The loss in timber occurred in beams supplied by the Bezwada workshop which appear to have been insufficiently seasoned to stand the dry heat of Kurnool. The Superintending Engineer, Colonel Baddeley, who was Superintending Engineer, II Circle, states that some of the beams had begun to crack before they left Bezwada and it is evident that they were not well seasoned. The Superintending Engineer, II Circle, will be addressed on the subject.

With the above remarks the estimate is recommended for sanction. There is little doubt that had not famine intervened and had the Executive Engineers concerned been able to devote their attention to the work at its commencement the excesses, which were in a great measure avoidable, would have been largely reduced.

30th October 1899. (Signed) W. B. DE WINTON,
Chief Engineer.

ORDER—No. 3075 W., dated 23rd November 1899.

The revised estimate, amounting to Rs. 32,000, for constructing a Police office at Kurnool is sanctioned in supersession of the estimate of Rs. 25,600 sanctioned in G.O., No. 1390 W., dated 1st May 1896.

2. The outlay on the work to end of 1898-99 was Rs. 26,857, and the current year's grant is Rs. 3,444.

3. Attention is drawn to the Chief Engineer's note read above.

4. The sanction accorded in paragraph 1 has been registered as Provincial No. 89 W. of 1899-1900, and classified as Civil Buildings—Original Works.

(True Extract.)

Under Secretary to Government.

To the Superintending Engineer, III Circle,
" Examiner, Public Works Accounts.
" Judicial Department.

Exd. Shaik Karim.

Read the following:—

From the Supdy. Engineer, III Circle, No 2781 W d 28-7-99

do do II Circle No 415 W d 2-8-99

do do I Circle No 369 W d 6-8-99

Note by the Chief Engineer P.W. D. d. 30-10-99

U.O. 6786-11-99

Circulated to

His Excellency the Governor

ORDER.
Bd. & Roads
Civil works.

No. 3075 W d 23-11-99

The revised estimate amounting to Rs 32,000, for constructing a Police office at Kurnool is sanctioned in supersession of the estimate of Rs 25,600 sanctioned in G.O. No 1390 W d dated 1st May 1896.

2. The outlay on the work to end of 1898-99 was Rs 26,857 and the current year's grant is Rs 3444.

3. Attention is drawn to the Chief Engineer's note read above.

4. The sanction accorded in para 1 has been registered as Provincial No 89 W of 1899-1900, and classified as

(a) Flay. X
A.E.H.
16.11.99

T As
1-11-99
W d

Civil Buildings, Original

W. H. H. 30.10.11

Note
The estimate is reviewed in the accompanying technical note (flagged O) and the Chief Engineer's note read above.

W. H. H. 30.10.11

W. H. H. 25/10/99

- To the S.E. III circle, with 10 encls.
- " Exar P.W. Sect.
- " Judicial Dept.

200/12/12/99

A memo to Secy. below

Sto. No 2781 W d/28-7-99
Note by E.W.

256 5122 1240 68

(a) Flax - I

Like the above quoted letter the Supg - Engr III circle submitted a revised estimate for Rs 32000 for constructing a Police Office at Kamroo. The original estimate for Rs 25600 was sanctioned in GO No 1390 d/1-5-96. The work was commenced in June 96 and carried on by departmental agency until Feb. 1898. The work was practically stopped during the famine of 1896-97. In Jan 1898 As the cost of the masonry work done by departmental agency was in excess of the estimated rates, the remainder of the work was after Jan. 1898 executed by piece work.

The revised estimate exceeds the original by 25 percent and the excesses may be grouped as follows

(a) Increase of rate	216.6
(b) Deviations in design	288
do do in materials	1016
(c) Errors and omissions	241
New Provisions	2305
Loss on timber	625
General charges	126.
Total	7217
deduct savings	-817
	6400

of them it is only necessary to consider (a), (c), (e) and (f)

(a) Increase of rate. The principal cause of excess is in the sub head chief dressed ashlar which was executed at a rate of Rs 27.12 against Rs 17.8 and Rs 18. provided for Coarse Rubble provided in the estimate. In this case

the work done class of work executed is far better than that provided in the estimate and the deviation may be passed with the remark that the Exec.

Supr should not have incurred the additional expenditure without distinct authority for so doing. It states that the Supr Ingr approved

of the ^{class of} work when in progress but there is nothing to show that attention was called to the fact that its cost far exceeded the estimation rate.

(c) The excess in this case is due to steel girders being substituted for ^{heavy} ~~steel~~ beams and to the cost of ~~carriage~~ ^{fact that} of slabs for flooring ^{were} ~~being~~ obtained from a more distant quarry (greater than was anticipated when the estimate was framed)

The former ^{alteration} ~~of them~~ was an undoubted advantage. In the latter case serviceable slabs could have been obtained closer but unfortunately ^{all} ~~none~~ of the officers employed in the building had ~~much~~ lately joined the duty and were much occupied with famine work. The unnecessary expenditure is therefore excusable.

(e) The principal item here is the provision of a

Compound wall and gate
which is reported to be
being necessary.

(H) The loss in timber
occurred in beams supplied
by the Bezvada workshops
which appear to have
been insufficiently
seasoned to stand the
dry heat of Kurnool.
The Supg. Engr. Col Baddley
states who was Supg Engr
II Circle states that some
of the beams had begun
to crack before they left
Bezvada and it is con-
ceding that they were not
well seasoned. The Supg.
Engr II Circle will be
addressed on the
subject.

With the above remarks
the estimate is recommended
for sanction. There
is little doubt that had not
famine intervened and
had the Engr. Superiors con-
ferred been able to devote
their attention to the work

at its commencement
the excesses which were
in a great measure
avoidable would have
been largely reduced

WEL
26/10/99

WEL
30.10.11

Public Works (1897) Department.

CURRENT No. 8298

3075W

1245W
1247W

with 7815 sent to D.W.
in 2/10/99

From The Superintg Engineer
Solely
Necessary

Order

No. 3691W

Dated 6-10-99

Received } 9-10-99

Registered }

Enclosures 4 (ans. with 21st
of this 5 } 5

Spare copies.

SUBJECT.

Police Office Annual
Forwards explanation
for excess expenditure
under certain items of
the estimate for

HC

Ans. Submitted for order with
reference to memo of 30/7/99
17th Sept 1899 which was drafted
by you.

May 10/10/99

BACK PAPERS.

FURTHER PAPERS.

P. W. S.
 No. 239 Kilmord $\frac{21}{22}$ September 1868
 Item,

Mr. R. P. Taylor
Sub Engineer in Charge
Head Quarters Sub-D. River No. 1.

Sept. The Executive Engineer
Rumohr Division

With reference to your memo of 25th
dated 14.9.1899 on copy of the Superintendent
Engineer's Endorsement No. 3138 dated 14.9.1899
on the Chief Engineer's memo No. 3517C dated 14.9.1899
calling on me for an explanation regarding the
work of constructing the Police office at Kurnool
I beg to submit the following:-

1. I was not in charge of the building throughout the period it was under construction. The building was commenced on 24th June 1896. I held charge of it from that date till the 20th March 1897. I resumed charge for a few days at the end of November 1897 (during which period no work was done). Took privilege leave owing to illness from 3rd December till after the summer holidays, and after I resumed charge again in January 1898 the work was carried on by a piece worker.

During the period 24th June 1896 to 20th March 1897
I was also in charge of Famine Relief works. 10th
November 1896 to the end of the period. The men
who were in immediate charge of the Famine works
under me at that time were with one exception
all experienced and raw hands who had to be
taught their work and watched carefully.
So I had the good deal out of my headquarters.
Cousins Sergeant Sheridan who was in
immediate charge of the Police Office work during
the period the work was carried out depen-
-dently was also a raw hand, fresh

from College and the Army with no called practical training course he had in the Engineer Division was, I understand, from what he told me, spent solely in Surveying and levelling so that the Police Office building was the very first in which he had gained his practical knowledge. I mention the Circumstances because I fear the Chief Engineer thinks me more blamable on account of the work being at my head quarters and overcast Sergeant Sheridan being available for special supervision.

During the period above mentioned, 24th June 1896 to 20th March 1897 when the work was carried out departmentally, it took till the 22nd September 1896 for the completion of the concrete work in the foundations of the main building; the concrete in foundations of the school and store rooms was begun and completed in October 1896.

There is no excess over the rate for concrete. I tried my utmost to obtain stone for the building as cheaply as possible. The stone suppliers refused to supply stone at the rates I thought fair and stopped the supply from 1st to the 20th October 1896, and to apply pressure on them.

I stopped the masons from working from the 10th to 20th October 1896, because the masons were more or less related to some of the stone suppliers. Eventually when I got the supply at a reasonable rate I let the masonry work proceed. The rates at which the building work was done were also carefully watched by me. A reference to the nominal muster rolls for the months of October 1896 to March 1897 will show that while the ordinary wage of a 2nd class mason is 10 annas a day, no mason was paid more than 8 annas a day (some were paid at only 5-6 and 7 annas) and they were fined to a point less than

half of these reduced wages when the

* These N. M. Rolls are recorded with the work abstracts in your Office -

the out turn of work was unsatisfactory. I began to think I was too cruel to them. regards the percentage of wastage in the stones I beg to state that it was unavoidable.

The nature of the Masamazed quarry stone is such that the ordinary size of stones applied was 1-3" by 1-0" or 1-2". To build a wall 1-6" thick therefore the size had to be reduced to headers 1-0" stretchers 6" width. Bond stones 2 ft. long had to be paid for at a higher rate than ordinary stones for the 2 ft. thick wall. Moreover, the Chief Engineer when Superintending Engineer of this Circle ordered that the building should be pointed both inside and outside. In pointing a building the large size of the Police office, wavy horizontal line would be an eyesore and therefore the courses were made almost truly level as they have been. This matter is again referred to in my paragraph 3 below. Again with reference to the statement that I was in charge during the whole progress of the work I beg to report that when I handed over charge of the building on 20th March 1897 the sundry mentioned was the state of progress.

Main building

Foundations, Concrete	Completed.
Basement - C.R. Stone	Completed.
Superstructure C.R. Stone	6769 cft.
Flat arch work	82 1/2 cft.
Segmental arch work	86 cft.
School and Store Rooms	

Foundations, Concrete	Completed
Basement C.R. Stone	
Superstructure C.R. Stone	2334 cft.

Armourers shop Nothing done.
(The above figures may be verified for me)

reference to measurement book No. 3444 pages 8 and 68). When I resumed Charge of the building in January 1898 I measured the whole work, and the following was the state of progress. Main building

* The book is available from my office.

Superstructure C. R. Stone - 10386 cft.
Flat arch work - 268 cft.
Segmental arch work - 1160 cft.
Chool and store rooms

Superstructure C. R. Stone - 3970 cft.
Flat arch work - 97 cft.
Armourer Shop.

Foundations Concrete - Completed
Basement C. R. Stone - 339 cft.
Superstructure do - 1237 cft.
Flat arch work - 31 cft.

3. With regard to the quality of the work which is said to be a class of masonry, I respectfully beg to quote the following from the Inspection notes of the Superintending Engineer III (circular) of 8 April 1897:—

8. Kurnool Police office:— "Up to tops and doors and very well built. Just as I want it." I therefore beg to represent that the quality of the work was such as gave satisfaction. I would have left the walls inside the rooms rougher than I did if it were not that it was intended to paint the interior.

4. As regards the flooring slabs procured from Jangalapally I beg to state that I joined the Kurnool Division only in January 1896: not in 1890. After I joined, the Police Hospital building was begun and completed, the flooring slabs in which building Kurnool slabs were to my mind of an inferior quality. In conversation with Mr. J. C. Dennehy, Sub Engineer, who

* Mr. Dennehy has served for years in the Kurnool Division and in every part of it.

who was then Special Sub-Divisional officer Kurnool he told me that first quality slabs could be obtained and delivered at Kurnool from Suddapally (a place which I am informed is within a mile from Jangalapally) at a cheap rate nearly as the Kurnool slabs, and not knowing any better as I had been only 6 months at the time in Kurnool. I asked the then Executive Engineer of Kurnool to order the slabs from Suddapally. The lower Sub-Divisional officer sent the slabs from Jangalapally. The rate for these slabs would not have amounted to what it did were it not for heavy traction charges and demurrage due to the boats staying at the shallows in coming up Canal. I was not aware in June 1896 that fairly good slabs could be had at Lothapally, 10 miles from Kurnool. The then Executive Engineer must have known that slabs could be had in Kurnool itself as they were supplied for the Police office building during his tenure.

5. In reply to para 3 of the Superintending Engineer's endorsement No. 3138 dated 26.8.1897 on the Chief Engineer's memorandum, I beg to report that the supply of doot and round stones from Bezvada work shops, where there had already been supplies locally, appears to have been a mistake of the work shop; for in your letter No. 1192 dated 18.7.1897 when the frames were still not supplied from Bezvada you countermanded that portion of your order No. 3300 dated 19.10.1896 which asks for the frames.

6. The delay in replying to this reference is due to my being in Camp when it was received, and to my wanting to be accurate in my dates and figures by reference to

The Records at Head Quarters before
I replied I beg to return herewith all the
papers sent to me with your memo under
reply.

I beg to remain
Your most devoted servant

(Signed) E. Taylor

Sub Engineer

(Signed) John C Johnston

Executive Engineer

Kurnool District

27-9-99

For Baran

Superintendent Engineer
in Charge Bellary

Letter No. 2758 dated Kurnool 27th September
1899 from John C Johnston Executive
Engineer Kurnool District to the Superintendent
Engineer in Charge Bellary.

With reference to your memorandum No. 3138
dated 26th August 1899 in memo from the
Chief Engineer No. 3517 of 14-8-1899. I have the
honour to forward Mr Taylor's explanation
which appears to me to touch upon all points.
2. The work done is better than what was contem-
plated when the estimate was framed but
it met with the then Superintending Engineer's
approval for in his inspection report under date
8 to 30 April 1897 occur these remarks.

"Kurnool Police Office up to top and (?) done
and very well built just I want it." I beg to
submit these inspection report in original.

3. As regards the frames I find an Office
order by the Executive Engineer of 9-10-1896 to indent
on the Kuzwada work shops for all wood
work of Police Head Quarters Office 'except
frames only' and the work shops in acknow-
-ledging this indent were aware of the fact
that a certain number of frames had been already
made locally for the Superintendent says "I beg to
inform what is the depth of recess in the
frames already said to have been made by you
at site of work &". This Office indent was No.
3300 dated 15-10-1896 and the Superintendent's letter
was No. 835 of 20-11-1896. Certain details accompany
the indent but no copies are available in this
Office. I can only arrive at the fact that a
certain number of frames had been made locally
and the Superintendent of the work shop
at Kuzwada had been informed of this fact
and was asked to supply only the balance
of the wood work required.

4. Sergeant Sheridan was in charge of the

The work from July 1896 to 9th June 1897 and
1st November 1897 to October 1898.

Mr. Taylor from June 1896 to 20th March 1897
and 27th November to 3rd December 1897 and
January 1898 to the end.

Mr. Willis from 23-3-97 to 26-11-1897.

Mr. Subramanya Iyer from 24.6.1896 to 22-3-97
and I myself 23-3-1897 to the present.

P.S. Mr. Taylor's statements have been verified and found
to be correct.

True Cpy.

Wm. B. Barclay Lt. Colonel
Superintending Engineer
in Charge
5-10-99

Letter No. 2300 dated Kurnool 28th September
1899 from John Johnston Esquire Executive
Engineer Kurnool District to the Superin-
tending Engineer in Charge (vide - Bellary).

With reference to your endorsement No.
3507 of 23-9-99 forwarding for remark
Mr. S. A. Subramania Iyer's letter No. 242 A
of 31-8-1899, I have the honour to state it may
well be assumed (a) that Mr. Subramania
Iyer did not specially order Chisel dressed
ashlar. The work done however is a kind of
ashlar. The only way I can account for such
superior work being done is that the mason
in charge from his experience and with
counting the cost insisted on his masons
turning out good work. There is nothing else
paid against the work itself.

(b) Mr. Taylor in his letter No. 239 dated 21st
September 1899 para 4 (accompaniment to
this Office No. 2758 dated 27-9-1899) explains
that the boating of slabs from Jangala p. by
to Kurnool became expensive on account of
shortness of water in the Canal. Mr. Subra-
manya Iyer though places the rate per Cubic
Yard per mile too low. He says it is only 4 pice
per Cubic Yard per mile. This is about 2 pice
per ton per mile and the usual rate is 6 pice per
ton per mile and I do not think it can be
done for much less if boats are employed
simply in bringing stone for there is the return
journey to be taken into account. If there is
much up and down traffic in a Canal
the circumstances would be different.
From records it is found the boats carried
about

about 12 tons Each trip; and the cost per ton is thus calculated.

Haulage 120 miles	Rs 12-0-0
6 days Crew	5-4-0
6 days boat	6-0-0
loading and unloading	1-0-0

Return journey 4 days at $\frac{2}{3}$ of above. 16-0-0

For 12 tons Rs 40-4-0

For 1 Cubic Yard Rs 1-1-0

This is higher than Mr. Subramania's Rs 2 $\frac{1}{2}$ a Cubic Yard.

Later we look up the old accounts no further particulars can be given. Perhaps the distribution of expenditure among Sub Heads is at fault also. If so this case is another in point to show that Sub Divisional Clerks and men over their Clerk should have some training in accounts. When both Overman and his Clerk are inexperienced, we cannot wonder that initial accounts go wrong.

True Copy

W. B. Bantling

Lt. Colonel
Superintending Engineer
in Civil - Bellary

5-10-99

Letter No. 6373 dated $\frac{25}{26}$ February 1898
from John C. Johnston Esquire Executive Engineer
Kurnool Division to the Superintending
Engineer, III Circle, Bellary.

Enclosure 1

In Continuation of this office No. 5443 dated 29.1.1898 in which I reported on the beams obtained from Bezwa for the Police Office at Kurnool, I have the honour to report that on the 12th Instant I further examined all the smaller timbers collected for the same work and appended a list of such as I considered unfit for use. It is probable that most of the extra joists rafters and small beams require to replace the rejected ones. In order to enable me to do this I request Early sanction to the local purchase of the 9 Rolled Steel girders asked for in this office No. 6352 dated 25th February 1898.

True Copy

W. B. Bantling

Lt. Colonel
Superintending Engineer
in Civil - Bellary

5-10-99

List of timbers collected for lower and upper stories of Police Office at Kumool.

- 1 Out of 244 joists $9'-6" \times 3" \times 6"$ twenty two rejected
- 2 Out of 61 joists $9'-0" \times 3" \times 6"$ four rejected.
- 3 Of joists to steps of staircase 3 each $17'-0" \times 4" \times 9"$ all three rejected
- 4 of 4 beams at Angles of Verandah, lower story, each $13'-0" \times 7" \times 8"$ all four rejected.
- 5 of 13 joists in Headquarters Inspector's room each $20'-0" \times 3" \times 6"$ one was rejected fully and half of another.
- 6 of 12 joists in Crime & General Department room each $20'-6" \times 3" \times 6"$ one was fully rejected and halves of 3 others.
- 7 of 26 joists of side rooms each $19'-6" \times 3" \times 6"$ four were fully rejected and halves of 4 others.
- 8 of 26 other joists for side rooms each $22' \times 3" \times 6"$ two were fully rejected and halves of two others.

Store and School room.

- 9 of 11 Common rafters (ventilators) each $17'-0" \times 3" \times 4\frac{1}{2}"$ one fully rejected.
- 10 of 26 Common rafters (ventilators) each $10' \times 3" \times 6"$ three were rejected.

N.B The Remark that half a rafter or joist is rejected shows that the rafter or joist is supported in the Centre by some beam.

(Signed) John C Johnston
Executive Engineer
Kumool District

True Cpy.

W. B. Anderson

5.10.99. Superintending Engineer
Kumool District

No. 3691

Superintending Engineer's Office,

3RD CIRCLE.

Bellary 6 October 1899.

FROM

Lt. Col. W. L. C. Baddeley R.E.

SUPERINTENDING ENGINEER,

3RD CIRCLE,

BELLARY.

To

THE

Chief Engineer

P. W. Department

Madras.

Sir,

Enclosures.

In reference to your L^t.
3517 of 17th August 1899 I have the honour
to forward a copy of letter N^o. 2758 of 27th
September 1899 from the Executive Engineer
Kurnool Division to which is attached Mr.
Taylor's explanation.

2. As regards para 2 (a) of your memo
I must point out that when you were
Superintending Engineer of the Circle, you approved
of the Class of masonry that was being done
in the Police office and between the date of your
inspection in April 1897 and my first inspection
in August 1898 there was no reason for the Officers
on the spot to make any change in the style
of the masonry. Even had it been possible to do
without destroying the appearance of the building.

3. I understand that this building was commenced
departmentally in order to ascertain the rates at
which high class masonry could be turned out.
This is not the only instance in this Circle in which
the endeavour to obtain high class work has
resulted in the estimate being exceeded.

4. I joined the Circle in the middle of May

- #1 Executive Engineer Kurnool Division N^o. 2758 of 27-9-1899.
with the Enclosure Sub-Office N^o. 239 dated 24 September 1899.
- 1 Executive Engineer Kurnool Division N^o. 2800 of 28-9-September 1899.
- 1 Executive Engineer Kurnool Division N^o. 6373 of 25-January 1899.
- 1 Enclosure (List of Timber Collected 27th).
- 1 Executive Engineer Mr. S. A. Subrahmanya Aiyar's letter N^o.
N^o. 137 of 31st August 1899 bearing Chief Engineer's endorsement
N^o. 137 of 14-9-1899.

May 1898 and I find the following in my
inspection notes. "New Police Office Kurnool"
8th August 1898

"A very handsome building of the latest type design,
built of lime stone, and approaching ashlar
work in quality. The Estimate only provides
for Coursed rubble but the work was commenced
departmentally and the class of work could
not be changed when it was continued
by piece work"

"The Estimate
with me largely exceeded and a revised
one is being prepared with full explanation
for excess. The work throughout is very good.
The work has been stopped pending the submission
of the revised Estimate"

5. For 2(b) Explanation has been given
by three officers and as regards that given
by Mr. R. S. A. Subrahmanya Aiyar averaged
I return it in original with a copy of Mr.
Johnston's letter N^o 2800 of 28th September 1899

6. Touching 2(c), the Executive Engineer Kurnool
in his N^o 5773 of 29.1.1898 reported that 9 beams
had been received from the Benzvada shops
and that 7 had been rejected for cracks.
He also recommended the use of steel girders
in place of teak beams and the local purchase
of these was sanctioned in S.O. N^o 1248 of 17.5.98.

I remember seeing some of the beams referred
to in the Benzvada shops and as the ends had
cracked I ordered iron bands to be strung
on. This was done, but the beams must have
cracked still more before receipt in Kurnool,
otherwise Mr. Johnston would not have
rejected them.

The rejected beams were cut up to replace scant
lings that had been rejected by Mr. Johnston
vide copy of letter N^o 6373 of 25.2.1898 and
list enclosed.

These were I believe also supplied by the

The Benzvada Shops.

8. It is impossible at this stage to fix the
responsibility for the rejected scantlings
altogether upon the Benzvada shops, as only
the soundest and most thoroughly seasoned wood
with stand exposure to the sun, and as pointed
out the cracks that commenced in the Benzvada
shops may have increased afterwards owing
to exposure on the railway or while at the
work site in Kurnool.

9. As a matter of fact scarcely any properly
seasoned wood can be used in the Department
as there are no depots where scantlings are kept
for the necessary length of time and ordinarily
no arrangements can be made for purchasing
timber until funds are allotted for a
building.

10. The concluding para of Mr. Johnston's letter
N^o 2800 of 28th September 1899 merits careful
consideration. So much depends upon the initial
accounts they are the foundation upon which
the whole scheme of accounts is based, but the
agency to prepare them is of the humblest description
and usually insufficient as regards numbers
and inefficient in quality. If arrangements
could be made for strengthening Sub-Divisional
Officers and for peripatetic Accountants to give
instructions to clerks under detached officers
and in Sub-Divisional offices, a great deal of
good would result.

11. In conclusion I must point out that
the wastage in the use of the Kurnool limestone
for good masonry is very great, about
37 per cent.

I have the honour to be
Your most obedient servant
Wm Baddley
Superintendent Engineer
in Charge

K
5.10.99

From
The Superintending Engineer,
3rd Circle,
Bellary.

To
The _____

Dated _____
Received _____ 189 .

Enclosures.

No.

Subject.

Public Works (1897) Department.

CURRENT No. 7274

No. 37816 of 14-9-99

From
The S. E. 2nd Circle.

Order

Forwarded to S. E.
3rd Circle for favour of
remuneration with reference

No. 415 W.

to Memo. No. 35176 dated 2-9-99.
17th August 99.

Received
Registered } 5-9-99

(By Order)
(Sd) H. S. Clerk.

Enclosures Nil.

Dy. Chief Engineer
Spare copies.

SUBJECT.

Constructing a Police Office
at Kurnool:— Forward
the explanation of Mr.
S. A. Subramanya Aiyar
E. E. Krishna Western Div.
for expenses under certain
items incurred with
reference to _____

INDEXED

15/9/99

B. C. M.

BACK PAPERS.

FURTHER PAPERS.

No. 272

KISTNA WESTERN DIVISION
OFFICE, 31st August 1899.

From

S. A. Subrahmanyam, Esquire,
Executive Engineer,
Kistna, Western Division.

To

The Chief Engineer,
Public Works Department,
The Superintending Engineer,
II CIRCLE.

Sir

Enclosures. *nil*

With reference to your Memo No 35176 dated 19th instant, I have the honor to explain as follows:

(a) Colossal dressed ashlar. I do not remember to have ordered this description. This item was probably executed after I delivered over charge.

(b) Floating stone from Gangalapatti. I have no records with me. I have to speak only from memory. This stone was in much larger sizes than the local Kurnool stone. It had therefore a much smaller length of edges to dress. Its edges were regular and easily dressed. A quantity of it was already by the canal side at one of the locks below and ^{collected perhaps for some other work further up} had only to be floated up to Kurnool. The cost of floating long distances over 100 miles at 3 pias per cubic yard per mile. The distance to Kurnool was I believe about 120 miles and allowing even 4 pias a mile per cubic yard, the boatage was to cost only 480 pias or Rs 2 $\frac{1}{2}$.

per cubic yard. The cartage to and from the canal banks of this stone already collected & of other stone yet to be collected was perhaps a trifle less than the cartage of the local stone to site. A cubic yard of this stone, being from $2\frac{1}{2}$ " to 3" thick would cover 1 square of floor.

By the use of gangalapalli stone, therefore the rate for flooring per square would be increased Rs $1\frac{1}{2}$ on account of boatage, but against this excess there was sure to be a saving of Rs $1\frac{1}{2}$ in respect of edge dressing & pointing, as there was a smaller length of naturally better edges to dress & therefore also of joints to point with cement. The flooring work was not done in my time & I do not now know if even the stone was brought to site. I do not remember what stone the estimate provided, but the foregoing calculations show that the excess anticipated, when I ordered gangalapalli stone to be used, was about Rs 1 per square only. To justify this excess, & in answer to the charge of excess there was already some stone which if not used, would not be used at all for a long time. The stone itself was superior. For the sake of uniformity of appearance, all the stone was to be from gangalapalli & none at all.

I remain this honor to be,
Sir,
your most obedient servant.

W. S. S. S.
Executive Engineer

29/10/1918
Kistna Western Division.

From

The Executive Engineer,
Kistna Western Division.

To The Chief Engineer P.W.D.
The Superintending Engineer,
II Circle.

Dated 31st August 1899

No. 2724.

Enclosures.

SUBJECT.

Constructing a Police Office
at Kurnool.
Furnishing explanation for
excesses under certain items
of the work.

P.W. Cur. No. 7274.

Recd 35-9-99
25 SEP 99

No. 415 W dated 2nd September 1899.

Forwarded to the
Chief Engineer Public Works
Department with reference
to his No. 3517 C dated
17th August 1899.

[Signature]

Major R.E.

Superintending Engineer,
II Circle.

No. 3781 C of 14-9-99.

Forwarded to Supg Engineer
III Circle for favourable
remarks with reference to
Memo No 3517 C of 17.8.99

(By order)

[Signature]
Dy. Chief Engineer.

To The S.E. III Circle.

Ref. No 2780 W d/28-7-99 from S.E. III Submitting
a Revised Estimate for constructing a Police office at
Kurnool.

Memo

The undersigned when Supg
Engr. III Circle ordered this
work to be carried out depart-
mentally with a view to as-
certain the proper rates
for such buildings, there
being an overseer, ^{special}
Sheridan, available for a Super-
vision, and the work being
at the Head Quarters of the
S.D.O. The result shows the
most lamentable want of
ordinary care, discretion,
and supervision, and the
Supg. Engineer is requested
to submit a full explana-
tion on the following
points especially from
Mr. Taylor who was Sub-
Div. Officer throughout the
period the building was
under construction.

2(a) The action of the
Succ. Engineer and S.D.O. in

[Signature]
I the
B. C. S.
C.S. *[Signature]*

INDEXED

2/8/99

without authority
deliberately carrying out
class of masonry work
which could not be executed
within the estimated rate,
it should be explained.

The stone at Kurnool is well
adapted for building with
very little
any dressing and the chisel
dressed ashlar appears an
unnecessary piece of extravagance.

(b) In explanation of the large
excess in rate caused
by using slabs for flooring
from Jangana patti, when
others almost equally good
were obtainable close by, it
is stated that a former C.E.
Mr. Ingo was responsible for
this mistake. It is however
to be noted that Mr. Taylor has
been SDO of the W. & C. Sub-
Division since 1890, and he
should have pointed out
that fairly good slabs would
be obtained ^{in the vicinity} close by. He
appears to have failed in
his duty in this respect
and his explanation shd.
be called for.

(c) The action taken by
the Exec. or Supg. Engineers

in the matter of the defect.
The wood-work should be
reported in order that any
further action be taken.
Mr. II may be addressed
on the subject if necessary.

3 A copy of this memo
will be forwarded to
Mr. S.A. Subramania Iyer
who was in charge of the
work from June 1896 to
March 1897 for any
explanations he may have
to offer.

W.S.
11/8

To S.E. III ✓
To Mr. S.A. Subramania Iyer
(through S.E. II) ✓

11/8/99

Current No. 6201
Letter No 2781 W
Dated 28 July 1899
From the S.E. III Circle

NOTE BY TECHNICAL SECTION.

Name of work Police Office at
Kurnool.

Revised Estimate Rs. 32000

The original Estimate for
Rs. 25600 was sanctioned in
G.O. N. 1390 dated 1st May/96.
The work was commenced in
June/96 and carried on by de-
partmental agency until Febry:
198. The work was practically
stopped during the famine opera-
tions of 197. In Jan'y: 198, it
was discovered that the cost
of the masonry work was done
by departmental agency was
in excess of the Estimated
rates. - So the work was with-
drawn from the S.E. under
the permission of the S.E. under-
taken by Piece-workers.

The revised Estimate ^{submitted} is embodied in the accompa-
nying comparative statement and the cause of excess might
be pointed as follows.

	Rs.
(a) Increase in rates	2616
(b) Variations in design	288
(c) - do - in materials	1016
(d) Errors & omissions	241
(e) New Provision	2305
(f) Profit & loss	625
(g) General charges	126
Total	7217
deduct Savings	8
Total Excess	Rs. 64

To W. remarks within
HLL
8/8

The S. S. was then S. A. Subramia Iyer
now in charge of Western Division

Explained as follows.

(a) The increase in this head is due chiefly to the superior masonry work executed - i.e. chisel dressed Ashlar instead of Coarse Rubble masonry stone is chosen as originally provided. It is explained that this description of work was at first departmentally and had been continued, though why it was so started is not quite clear.

(b) The excess under this head is due partly to greater depth of foundations found necessary in main building to reach rock level, and partly the caps and pediments of various pillars being of cut stone.

(c) The excess in this case is due to steel joists being substituted for teak work beams, - to superior flooring slabs being got from the Jangalaballi quarry in the Coimbatore Dist. The estimate provided for slabs obtainable in Kurnool which are of inferior quality. - However very poor slabs are said to be got from the Sathapalli quarry 10 miles from Kurnool - but this fact was overlooked in the first instance and the slabs were procured from the Jangalaballi quarry at great cost. It is stated that a former Engr. was responsible for this mistake.

(d) Excess in this head due to masonry chiefly in regard to bevelling the edges of the tops of parapets.

(e) Under this head the following new provisions have been made -

(25% of original).

Rate for C.R. stone { as estimated { 10.
as per data 19.14.0
Rate for chisel dressed Ashlar - - - - - 27.12.0

The action of the Engr. in deliberately carrying out a class of work which could be much better known could not be executed within the sanctioned rates without any authority for so doing, deserves notice. Judging from the data the kind of work executed appears quite unnecessarily expensive. Why much of the stone at Kurnool is adapted for building with any dressing but this increase in quantity is more than compensated for by the decrease in rate for concrete.

I do not understand how this excess occurred.

This was certainly advisable.

Rate for flooring with slabs from Sangalipalli - Rs 43.4.0
do do do from Sathapalli Rs 14.0.0

x but Mr. Taylor has been SDO of the sub-division since 1890 and he should have pointed out that fairly good slabs could be obtained close by. It appears to me that he failed in his duty in this respect, and blame cannot be attached to the Engr. who probably did not know the District.

I quite agree.

hinges found necessary - - - 100
2. Swelling ground forming approach roadway - - - 100
3. Removing old compound walls & debris - - - 440
4. bricking doorframes with iron sills - - - 131
5. locally made windows - - - 34
6. Compound wall of gate - - - 1500
Total (e) Rs. 2305.

Item no. 6 is worked & very necessary.

(f) The loss under this head is as follows.

(1) Work done received from Bezawada Workshop and found unfit for use - - - 694
(2) Extra supply of frames received from Bezawada - - - 73
(3) Theft of work in transit from Bezawada Workshop - - - 58
Total loss Rs. 825

If this was the case (they are stated to have been so badly cracked that they could not be used for the purpose for which they were intended) the Bezawada Workshop should bear the cost.

I remember writing about this when the further inquiry shall be made.

(4) It is not clear why the work should be charged with this head & not from the Bezawada Workshop.

(2) By a mistake frames were made locally - which a supply was sent from Bezawada
(3) Theft in transit - undetectable

(g) due to increase in super-vision -

The note put up with the Comparative statement submitted, has evidently been prepared by the Civil draftsman who was temporarily employed in this Section, and T. informs, that he has had very little experience in

adopted in this work - Com. 17th & 18th
-sequently his results are not
correct.

The S. E. explains, that the delay in the submission of this revised Estimate although its necessity was foreseen in Jan'y: 198, is owing to the amount of work involved in its preparation:

The estimates for a lightning
Conductor and Cots are making
will be taken up separately.
hereafter:

Am. E.
H. E.
5-8-99

Before passing orders on
this an explanation may
be called for from the
S.S. who allowed Chind
dressed as a soldier to be
done instead of C. R. Stone
and from W. Taylor for
not bringing to notice
that good ~~stone~~ ^{stable} could
be obtained within
10 miles of Kurnool
W. J.

SE II may also be written to regarding the defective timber

As the I indicate the
work to be carried out
definitely, with a view
to the proper rate for
such building, the being
an increase (in London)
available for special rates
being, the work being at
the 40 Qs of the L.D.O. The
could show the most

Amount.	a	b	c	d	e	f	g	h
	Increase in traded.	Deviation in design	Deviation in materials	Errors & omissions	new Provisions	Loss.	General charges.	Savings
van Benthuysen.	2229	288	924	160	640	561	120	367.
late H. and R. m.	303	-	66	-	131	18	6	329
Remond's ship.	79	-	26	3	34	46	-	43
debtors	5	-	-	78	-	-	-	28
insurance item	-	-	-	-	-	-	-	50
insurance rate 1/2%	-	-	-	-	1500	-	-	-
Total	2616	288	1016	241	2305	625	126	817

6-2-29
K. H. H.

Public Works (1899) Department.

CURRENT No. 6201

From The Superintendent, Engineer
3 Circular
Secretary

Order

No. 27814

Dated 28-7-99

Received } 31-7-99

Registered

Enclosures 7 Plans 1 } 3 tabs to
Others 9 }

Spare copies.

SUBJECT.

Police Office at
Mumool.

T. J. J. J.

10/31/7/99

Forwarded for
sanction a revised
estimate of Rs 3200-0
for court.

028372.117/8

HC

FURTHER PAPERS

Superintending Engineer's Office.

3RD CIRCLE

Bellary 28 July 1899.

FROM

3RD CIRCULE
Bellary 28 July
Lieut. Col. W. L. C. Baddely R.E.
SUPERINTENDING ENGINEER.

3RD CIRCLE.

To

THE

Chief Engineer

P. W. Department

Made as

Sir,

1 Report

1 Data list

1 General abstract este

1 Comparative statement

1 Detailed estimate

1 Details & abstracts

estimate for Compound
wall with a tracing

Enclosures.

I have the honor to submit

For sanction a revised estimate of Rs 32,000 for constructing a Police Office at Kurnool, on the standard plan.

2. He attached note Explains the reason
for the excess of Rs 6,400 over the estimate
of Rs 25,600 sanctioned in B.C.N. 1390 W
of 1st May 1896.

3. The necessity for a revised Estimate was foreseen a year ago, but owing to the amount of work involved in its preparation. As can be seen from the Comparative statement, the Executive Engineer has been unable to submit the Revised Estimate until now.

I have the honor to be
 Sir
 Your most obedient servant.

Kussadchur

Superintending Engineer

27² of

From
The Superintending Engineer,
3rd Circle,

To

The _____

Dated

Received

} _____ 189 .

Enclosures.

No.

Subject.

10 P