Archives I—10,006—16-8-77.

(1) Number of pages 22

(2) Date of repair

(3) Initials of the Referencer

TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

P. W DEPARTMENT

G.O. No. 4592 W
B.P. No.

Press.
Mis.

Dated 4 - 12 - 1878 ~~197 .~~

V. S. 17

Not to be folded or roughly handled

4592 W

1

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

4th December 1878, No. 4,592 W.

Buildings and Roads.

Military Works.

Read the following papers :—

No. 19. From Colonel F. J. MOBERLY, R.E., District Engineer, Bangalore, to the Chief Engineer, Public Works Department, dated Bangalore, 3rd October 1878, No. 133.

I HAVE the honor to forward revised plans and estimates for the roofs of the cisterns at Agram and the Royal Horse Artillery. The sanctioned estimates for these works amount to Rupees 16,520 and 10,450, respectively; the saving of Rupees 4,020 and 2,850 is effected by reducing the number of trusses and buttresses from twenty-one to eighteen in the former, from twenty to fourteen in the latter work, and by omitting the heavy iron shoes, into which the feet of the trusses butted, and which appear to me quite unnecessary, and objectionable because they necessitate opening the cistern walls and passing bolts through them.

2. The walls, as I have already reported in my No. 130 of 21st ultimo, are in very good condition, and have, during a whole month, borne the pressure of water raised to its full height. The lateral pressure of this light roof is very little, but, to make it safer, I have provided for buttresses at each truss which will be carried by wall plates lying on the walls.

3. If the revised plans are sanctioned, I would have the iron work made up at once in the Public Works Workshops and build the buttresses immediately.

No. 19-A. From the same Officer, dated Bangalore, 31st October 1878, No. 149.

IN reply to your memorandum, No. 4,895, dated 29th instant, I have the honor to report that nothing has been done towards providing the iron trusses, &c., for roofing the two cisterns, nor have the buttresses been commenced.

2. These roofs have been sanctioned in G.O., No. 589 W, of 16th August 1877, and allotment has been made in Budget Item 16 to the amount of Rupees 40,000.

3. In putting up the roof which was received shortly after I took charge on the Bakery reservoir I was struck by the weight and unnecessary amount of material and the injury caused to the walls by the insertion of the shoes held by bolts through the masonry, plan enclosed.

4. To avoid these defects in the two roofs still remaining to be erected, and to save something in cost, I proposed a simpler and lighter truss resting on the walls, and, in deference to your expressions of opinion as to the weakness of the masonry, retained in my estimate the items of buttresses.

5. I think that you are mistaken as to the quality of the masonry; it is standing perfectly all pressure from water, and I see no reason why the walls should not uphold the weight of so slight a roof as is now proposed, the tie rods taking all lateral pressure. It will be very easy to try the quality of the masonry by breaking down a part of the unused portion of the Cavalry reservoir; if that is, as I expect to find, well set and sound, we may put the roof on it or connect the walls with buttresses by bond stones without any risk.

6. If the cisterns are not to be roofed at all, of course there is an end to all further discussion; but I was under the impression that the roofing had been considered necessary.

No. 20. ORDER THEREON, 4th December 1878, No. 4,592 W.

THE cisterns having answered without cover for the last ten years, the Government are of opinion that, pending submission of plans and estimates for a lighter and less expensive description of roofing, the covering in of the cisterns may be very well deferred.

(True Extract.)

Colonel, R.E.,
Secretary to Govt., P.W.D.

To the Superintending Engineer, ~~[illegible]~~ Third Circle.
" Examiner of Public Works Accounts.
" Military Department.

Exd. A. S. Rodgers.
Spare Copies

4592 w
2

BUILDINGS AND ROADS.
MILITARY WORKS.

Govt. of [1878] Madras.

PUBLIC WORKS.

To

THE SUPERINTENDING ENGINEER,
FOURTH CIRCLE,
&c., &c., &c.

Dated December 5th.

Issued

Recd. Encl.

G. O., 4th December 1878, No. 3,592 W.

DECEMBER

Nos. 19-20.

Covering in of the cisterns in the Agram and Royal Horse Artillery Barracks, Bangalore, to be deferred.

Roads & Buildings.

81

No. 133.

DISTRICT ENGINEERS OFFICE
Bangalore 3rd October 1878

From

The District Engineer
Bangalore.

To

The Chief Engineer
Public Works Dept.
Madras.

SIR,

I have the honor to forward revised plans and estimates for the roofs of the cisterns at Agram and the R. H. A. The sanctioned estimates for these works amount to Rs 16,500 and 10,400 respectively; the savings of Rs 4,000 and 2,800 is effected by reducing the number of trusses ~~the~~ and buttresses from 21 to 18 in the former, from 20 to ~~18~~ 14 in the latter work, and by omitting the heavy iron shoes, into which the ~~foot~~ feet of the trusses butted, and which appear to me quite unnecessary, and objectionable because they necessitate opening the cistern walls and passing bolts through them.

2. The walls, as I have already reported, in my No. 130 of 21st ultimo, are in very good condition, and have, during a whole month, borne the pressure of water raised to its full height. The lateral pressure of the light roof is very little but, to make it safer I have provided for buttresses at each truss, which will be carried by wall plates lying on the walls.

[illegible]

3. If the revised plans are sanctioned, I would have the iron work made up at once in the Public Works Workshops and build the buttresses immediately.

I have the honor to be
Sir,
Your most Obt. Servt.
[illegible]
Col. R.E.

4592 W
84

Roads & Buildgs.

From

The District Engineer
Bangalore,

To

The Chief Engineer
P. W. Deptt.
Madras.

C.E. No 4895 d/29th Octr

No 133

Dated 31st } October 1878.
Recd }

Enclo: 4. {2 Plans &
2 Estimates}

Roofing the Cisterns at Agram & Rittet, [illegible] — Forwarded for sanction revised plan & Estimates for —

× Sent to S.E. 3 Circle (vide C No. 721 of 30-1-80.

3/11

Roads & Buildings

District Engineer's Office

No. 149.

Bangalore, 31st October 1878.

From

The District Engineer
Bangalore

4592
5

To

The Chief Engineer
Public Works Deptt.
Madras.

Sir,

In reply to your Memo No 4,895 dated 29th Instant, I have the honor to report that nothing has been done towards providing the iron trusses &c for roofing the 2. cisterns, nor have the buttresses been commenced.

2. These roofs have been sanctioned in G.O. No 589 W. of 16th August 1877 and allotment has been made in Budget Item 16 to the amount of Rupees 40,000.

3. In putting up the roof which

was received shortly after I took charge, on the Bakery reservoir, I was struck by the weight and unnecessary amount of material, and the injury caused to the walls by the insertion of the shoes, held by bolts through the masonry - plan enclosed.

4. To avoid these defects in the two roofs still remaining to be erected, and to save something in ~~the~~ cost, I proposed a simpler and lighter truss resting on the walls, and, in deference to your expressions of opinion as to the weakness of the masonry, retained in my estimate, the items of buttresses.

5. I think that you are mistaken as to the quality of the masonry; it is standing perfectly all pressure from water, and I see no reason why the walls should not uphold the

weight of so slight a roof, as is now proposed - the tie rods taking all lateral pressure. It will be very easy to try the quality of the masonry, by breaking down a part of the unused portion of the Cavalry reservoir; if that is, as I expect to find, well set and sound, we may put the roof on it, or connect the walls with buttresses by bond stones without any risk.

6. If the cisterns are not to be roofed at all, of course there is an end to all further discussion; but I was under the impression that the roofing had been considered necessary.

I have the honor to be
Sir,
Your Most Obt. Servt.
J. Moberly Col. R.E.
District Engineer.

31/10

Roads & Buildings.

From 12289

The District Engineer
Bangalore,

To

The Chief Engineer
P.W. Dept
Madras

No. 149

Dated 31st Octr 1878.

Recd.

Enclo: One tracing plan.

not recd in Record Office
21/11/87.

CE No. 4895 29-10-78
Go 589W 16-8-77.
" 82W 16-5-77.
" 83W 16-5-77

Roofs & Cisterns in the Agram & R.N. Barks—

Informs that nothing has yet been made towards providing iron trusses &c for the — &c.

Public Works Department.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Under date the

Read the following :— 4592W/87

From the Dist Engr Bangalore (H.E. No. 133 of 3rd October 1878)

The revised plans and estimates submitted with the foregoing letter are sanctioned. The total amount of the estimate sanctioned in G.O. No. 589 W of 16th August 1877 is thus reduced from Rs. 66,598 to Rs. 59,728—

A copy of these proceedings will be forwarded to the Government of India for information with reference to Colonel Pollard's letter of the 7th August 1877.

No.

24/10

M. W. Sullivan

No. 812 M.W.

H.E. &c.

Copy of the above forwarded to the Government of India

Dist Engr. Bangalore
Exr. D. W. Accts
Mily Deptt

Despd 20/10/78

P.W.D.

4592

Note by the Chief Engineer

In the budget of the current year the following sum has been sanctioned for covering in the cisterns connected with the water supply to the troops at Bangalore.

For Additional works connected with the Ulsoor Water Supply Project—Item 16 } Rs: 40,000

These works are portions of a scheme devised by Colonel De Courcy Scott (who was specially entrusted with the duty) for completing the water works at that station:—

If the cisterns have been built 12 years & have been [illegible] satisfactorily [illegible] without [illegible] cover —. it may be considered not essential & as the estimate & plan is clearly not yet correct — the propos

Colonel Moberly the present Executive Engineer on proceeding to commence the works was struck with the largeness of the estimate and suggested one or two methods of reducing the amount by adopting roofs of a different pattern.

The cisterns have been built more than twelve years and although they have been in use now for nearly that time, Officers recently appointed to Bangalore have lost sight of the fact that the Horse Artillery and Cavalry cisterns

May be laid
aside in consequence
of the order
restricting [illegible]
[illegible]
[illegible]
the budget
2/11

failed when first tried that it was necessary to build an inner lining of masonry one brick thick in cement, and repair the floors.

The walls having no surplus strength are now to have buttresses built against them to enable them to bear the weight of the roof.

The Chief Engineer fears that even the lighter and cheaper roof proposed by Colonel Moberly may have the effect of rendering the cisterns leaky for it will be observed that it is intended to knock holes in the masonry of the walls to insert granite stones to connect the walls with the buttresses. The walls will be so much shaken by the process that the cisterns which now have answered their purpose many years may be rendered leaky.

If the covering in of the cisterns is considered absolutely necessary the Chief Engineer suggests that

4592W
117

pillars be built inside the cistern to support a very light inexpensive framework covered by corrugated iron.

The cistern in the Old Infantry Barracks which was built some time after the others with much thicker walls would not be endangered by a roof being put on it.

In any case this work will now have to be postponed in consequence of the order for the reappropriation of

Col. R.E.
Chief Engr. P.W.D.
Nov: 1878

8

4592
11

From the District Engineer Bangalore
Nos 133 and 149 d/ 3d and 31st Oct: 1878
Note by the Chief Engineer d/ 23d Nov 78

FOR ORDERS.

Col. R.E.
Secy. to Govt. P.W.

26th Novr. 1878

FOR ORDERS.

B & R
Civil works

No. 4592 W Public Works Department.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the 4th Decr. 1878

Read the following :—

4592 W
12

From
The Dist. Engr. Bangalore (H.E. Nos 133 & 149 d/ 3d & 31 Oct
Note by the Chief Engineer (H.E. — d/ 23d Novr. 1878

The cisterns having answered without cover for the last ten years, the Government are of opinion that pending submission of plans and estimates for a lighter and less expensive description of roofing, the covering in of the cisterns may be very well deferred.

E.A.F. 2/12

Supdg. Engr. ~~Fourth~~ Third Circle
Genl. P.W. Accountant
Mily. Dept. 18

Despd. 11-12-78

Ex Ex