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MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

G.O. No. 2064	Press
474-475	Mis.
Dated 68-7-	1865.

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
18th July 1865.*

No. 474. Read the following Proceedings of the Madras Government in the
Military Department:—

Communicating Minute by His Excel-
lency the President, with Memoran-
dum of instructions to the Executive
Engineer at Bangalore, relative to the
buildings and other works required
for the proper accommodation of the
whole of the Military establishments
at that Station.

(Here enter 11th July 1865, No. 2,554.)

No. 475. ORDER THEREON, 18th July 1865, No. 2,064.

MILITARY WORKS, No. 32.

Communicated to the Superintending
Engineer of the 5th Division, who will direct
the Executive Engineer at Bangalore to
expedite the submission of the plans, &c., called for by His Excellency the
President.

(True Extract.)

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

To the Superintending Engineer, 5th Division.
,, Military Department.

Exd. S. T. Augustin.

13

MILITARY DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Read the following papers :—

Minute by His Excellency the President.

BANGALORE.

I had no idea that the Cantonment arrangements of Bangalore were in such an unsatisfactory condition, till the state of the Barracks in the old race course was brought under my attention a few months ago :—Indeed, till I came here, and went over the whole of the Military Establishments, I was not in any way aware of the amount of work remaining to be done, before the European Troops of this Division of the Army could be properly accommodated.

I believe that the Members of Council are as ignorant as I was of the amount of the liabilities, which the Government is in some manner pledged to meet ; and I shall, therefore, I think, do well in bringing the existing and the prospective state of things under the notice of the Government.

Bangalore is the Head Quarters of the Mysore Division of the Army. The Troops quartered there consist of—

1 Regiment of British Cavalry,

2 Batteries of Horse Artillery,

2 Field Batteries of Artillery,

The Head Quarters of the Sappers, averaging from two to three Companies,

1 Regiment of British Infantry,

2 Regiments of Native Infantry,

of these one Battery of Horse Artillery, composed of Natives, is being gradually absorbed, and the probable complement of Artillery will be three Batteries, 18 Guns.

The Regiment of British Cavalry at present occupies a very commodious range of Barracks by the side of the Parade-ground, and all the buildings connected with these Barracks, with the single exception of the Hospital, are in a satisfactory condition—it is however in contemplation to move the Cavalry to a new set of Barracks which have been under construction since 1858, and which are now approaching completion. The Horse Artillery Barracks are in good condition and require but little doing to them.

The Barracks for the two Field Batteries are in a bad state, and it is proposed to move both these Batteries to the new Barracks, which have been so long building, and to make such additions to them as will fit them for a Regiment of Cavalry and two Field Batteries of Artillery.

The Regiment of British Infantry now occupies a Barrack close to the present Cavalry Barrack, but the amount of accommodation for the Regiment is not sufficient, and its character is bad—it is therefore proposed to add such a number of buildings to the Cavalry Barrack as will make it capable of containing, without undue crowding, the whole of the Infantry Regiment.

The Sappers and Native Infantry Regiments, occupy a set of well established Lines.

The Arsenal, containing spare Stores, Arms, Ammunition, a Battery Train, &c., occupies some buildings in the Fort, at a distance of from two to two and a half miles from the centre of the Barracks. The buildings belong to the British Government, the Fort to the Rajah of Mysore. The distance of the Arsenal from the Troops is a great inconvenience ; a large Guard has to be detached for its protection ;

and all the Stores and Ammunition required for the use of the Troops have to be carried, under escort, for a long distance—I do not say much as to the chance of an out-break which might furnish the Insurgents with Arms and Ammunition, because I do not think such an event likely to take place; but the position is such as to make a contingency of this kind a fair matter for consideration.

The Commissariat Stores are dotted about the Town, at such distances apart as to render their proper supervision a matter of impossibility. Under such circumstances as these, I have thought it desirable to go carefully into the consideration of the whole of the Military arrangement of the Cantonment. I have consulted General Haines, the Officers in Command of the different Regiments, the Inspector General of Artillery and the Officers in Command of the Batteries, Colonel Barrow Deputy Inspector General of Ordnance, and the Assistant Commissary General stationed here, and they all approve of the following arrangements.

The Barracks on the old race course to be occupied by the European Cavalry Regiment and two Field Batteries of Artillery. A Hospital to be built on that ground to accommodate the sick of the Cavalry Regiment and the whole of the Artillery.

The present Cavalry Barracks to be handed over to the European Infantry Regiment, such alterations and additions to be made, as will make the accommodation sufficient for a Regiment of the present strength. The most expensive addition will be a new Hospital.

By these changes, the whole of the European Force will be accommodated in well constructed airy Barracks.

The Barracks now occupied by one of the Field Batteries will be transferred to the Ordnance Department, and fresh buildings will be erected on the ground adjoining, into which the whole of the Ordnance Stores will be moved. A couple of Magazines will be erected within the limits of the Arsenal for the Powder.

I may observe here that, as the buildings in the Fort belong to the British Government, and will be transferred to the Mysore Government when the change is made from one site to the other, we have a right to expect that some assistance should be given by that Government, towards the construction of the new Ordnance buildings.

The Barracks now occupied by the European Infantry Regiment will, it is believed, be more than adequate for the accommodation of the Commissariat Department.

The Troops and the whole of the Military Departments will, if this scheme be adopted, be concentrated within a reasonable distance from each other, each Department will have its Stores, Workshops, &c., under direct supervision and control.

I have, therefore, given to the Executive Engineer instructions (of which a copy is appended to this Minute) to submit, with as little delay as possible, a Statement of the works which will be required, in order to carry out the whole of these alterations, in order that, when they have received the approval of the Commander-in-Chief, they may be sanctioned by Government, and form the Standard Plan for the Cantonment, the details of which will be estimated for separately, the works being pushed on with all convenient speed.

I must, however, call the special attention of the Government to one very important subject, namely, the supply of water to all these Establishments.

The position of Bangalore upon a sort of spur of gneiss, the valleys on the sides of which are limited in area, is by no means favorable. There are no springs,

at least none which can be depended upon, and the supply of water for the Troops and inhabitants is derived from the tanks which have been constructed in the valleys, which retain the water of the monsoons, but which must also receive a good deal of the drainage of the Town.

A plan was suggested some two or three years ago, by which the water of one of these tanks was to be raised by a Steam Engine, and then distributed through Iron pipes to the different Military Establishments. This plan was adopted, and steps have been taken to carry it into effect. The building has been commenced for the Engine, a certain amount of pipes have been received, the Steam Engine is in the hands of the Government, and the Pumps are in course of construction, I believe.

I cannot, however, but think that the original plan, by which the water which fell on the roofs of the different buildings was to be carried into Tanks, and reserved for the use of the Troops, would have been the best. According to the pumping scheme, the water falls on the Barracks, descends some 70 or 80 feet, and is then, after being mixed with the general drainage of the town, pumped up at no small cost to be distributed to the Troops. It is true that the Sanitary Commission have reported that the analysis of the Ulsoor tank water is satisfactory; but in a dry season it is difficult to say what sort of change might take place in the water, and there can be no question that the pure rain water from the roofs of the buildings, allowed to settle in covered tanks, would be more likely to be uncontaminated with filth of any kind, than that which, after washing the general surface of the country, is retained in an open tank and there mixed with a portion, more or less large, of the drainage of the town.

I am therefore disposed to recommend the adoption of the original plan, and that provisions should be made for the retention of the whole of the water which falls upon the roofs of the different buildings, both in the new and old Barracks. From returns which I have procured, I find that the average rain-fall is 33.26 inches; during the months of December, January, February and March, the fall is very trifling, but during the other eight months the minimum fall is 1.46 inches, and the maximum 6.46 inches per month. Now, the surface or catch of one of the blocks of Barracks, which will contain (say) 90 men, is 24,225 square feet, and if the rain-fall be taken at only 2 feet, this will give in the course of the year a supply of 48,450 cubic feet, or 9½ gallons per man per day for 90 men, which is an ample allowance.

By carrying the drainage of the roofs of all the buildings, including stables into a series of tanks, an ample supply will be secured for the drinking of the men and horses, at all events.

I do not propose to give up the scheme of pumping from the Ulsoor Tank, but I should make this altogether subsidiary to the plan mentioned above. In dry seasons it might be necessary to supplement the drainage from the roofs, and the Engine could then be brought into action. The rain-fall on the roofs, too, could hardly be expected to supply the water for plunge-baths, and a variety of other purposes for which any decently clean water would answer. But as these objects would not be sufficient to put the Engine steadily at work for a certain number of hours per day, it might be as well to ascertain whether the Government of Mysore would not be disposed to avail itself of the spare power to pump up water for the supply of a part of the town. Such an idea has been mooted, and it would be as well that we should ascertain whether this might not be made to form a portion of the scheme.

There is one more subject to which I wish to draw the attention of the Government. The Commander-in-Chief, in alluding to the comments made by the Sanitary Commission on the Prison on the race course, has suggested the construction of a Military Prison at Bangalore. It appears to me that a good Military Prison here might be made to answer for the whole of the Presidency, that is for all South of Secunderabad. That Station has, I believe, a good Military Prison. That at Bangalore, in a comparatively cool and healthy climate, might be made to accommodate the Prisoners sent up from Madras and down from Bellary. There is now Railway communication from Madras, and in the course of a few years there will be similar means of communication with Bellary. I should therefore recommend that a Central Military Prison should form a part of the general scheme for the Military Buildings at Bangalore.

(Signed) W. DENISON.

Instructions for Captain Tulloch, Executive Engineer.

Captain Tulloch will put himself in communication with the Military Authorities, and will submit, as soon as possible, a rough sketch and a detailed description of the buildings and other works which will be required to complete the whole of the Military Establishments at Bangalore.

These will be as follows:—

1st.—Those which will be required to accommodate a Regiment of Cavalry and two Field Batteries of Artillery on the old race course. Captain Tulloch will note in his description and sketch those buildings which are completed or in progress, distinguishing them from the others which have still to be built.

It is believed that the eight blocks, of which six are complete and two approaching completion, will, when supplemented by the building now occupied as Serjeants' Mess-room and Recreation-room, be sufficient to accommodate the 18th Hussars at their present strength, and the two Field Batteries of Artillery. If this be the case, it will be necessary to provide a fresh set of buildings for the Mess of the Serjeants of Cavalry and another for Artillery, while separate sets of Recreation, will have to be built for both Corps upon a simple and more appropriate plan than that upon which the present building is constructed—should the accommodation be insufficient, another block may be added to the East range where there is ample space for it. In this case the 18th Hussars will occupy the five blocks of the East Range, and this will determine the position of the Stables for the Artillery and Cavalry. A question has been submitted to the Government, with reference to the construction of a Military Prison at Bangalore—this will be dealt with hereafter—but the existing Prison may be made with few alterations to serve as a Regimental Prison for the whole of the Troops quartered in these Barracks.

The present Cavalry Barracks will be occupied by the 10th Regiment, as soon as the Hussars are moved to the race course, but there is not accommodation for more than eight Companies. Captain Tulloch will, therefore, in communication with the Military Authorities sketch out and describe all the buildings which it will be necessary to erect to accommodate an Infantry Regiment of the present strength, in addition to those already existing. Additions will have to be made to the Hospital attached to the present Cavalry Barracks, in order to enable it to accommodate the sick of a Regiment of Infantry—but as the building has been reported on unfavorably, it would be as well to build a new Hospital altogether, instead of attempting to add to one which in point of fact cannot well have additions made to it. A new Hospital for the men of the Regiment will therefore be included in the list of buildings required.

When these buildings are completed, adequate provision will be made for the accommodation of the European Cavalry, Artillery and Infantry.

2nd.—As it is very desirable that the Arsenal and Magazines, which now occupy a part of the Fort, should be removed and placed on a convenient site in the immediate vicinity of the Barracks, Captain Tulloch will put himself in communication with Colonel Barrow and the Ordnance Authorities, and ascertain from them the extent of accommodation suitable for their purposes, which will be afforded by the Barracks and other buildings now occupied by the Field Batteries of

the Artillery—and he will submit a rough sketch and a description of the buildings which it may be necessary to erect in addition, including in these two Magazines, each capable of containing about one-half of the quantity of powder required for the use of the Division.

The space occupied by the Arsenal will have to be enclosed with a good wall, and provision should be made for flanking this by Towers or something analogous at the angles, this will be considered when the distribution of the buildings is under consideration.

3rd.—*Water supply*—Captain Tulloch will state fully what additional pipes, &c., he will require for the completion of the Ulsoor project—but at the same time he will sketch out and describe the tanks which it may be necessary to construct for the purpose of storing away the drainage from the roofs of the Barracks, estimating the rain-fall at an average of 30 inches per annum, and making allowance for a steady consumption of water from these tanks, at the rate of 10 Gallons per man per day.

4th.—*Commissariat*.—Captain Tulloch will put himself in communication with the Officer in charge of the Commissariat Department, and will ascertain from him the amount of accommodation which will be required for Commissariat Stores, and he will, in concert with that Officer, decide as to the extent to which the Barracks and other buildings now occupied by the 10th Regiment will meet the demands of the Department, noting of course the alterations required in these, and giving a description of the new buildings which will be wanted.

Captain Tulloch will understand that the sketches required are simple block Plans for the purpose of pointing out the sites of the proposed buildings, the descriptions being full enough to enable the Government to form an opinion of the extent of accommodation required.

(Signed) W. DENISON.

BANGALORE, 28th June 1865.

ORDER, No. 2554, 11th July 1865.

Resolved that the foregoing Minute by His Excellency the President, with Memorandum of Instructions to the Executive Engineer at Bangalore, be communicated to His Excellency the Commander-in-Chief and to the Department of Public Works.

2. On the submission of the information called for in the above papers, Government will be prepared to pass orders in detail on the several arrangements proposed. Meanwhile, the Commander-in-Chief is requested to favor Government with his remarks thereon, as early as convenient.

(True Extract.)

Manmohan Das
Under Secretary to Government.

To the Quarter Master General.
" Public Works Department. *With 20 spare copies.*
" Adjutant General, ... } for information.
" Controller of Military Accounts, }

Erd. J. E. Cashart.

Let.

7:14

21st 2064

July 19th 1864

Communicated to the

Superintending Engineer of the

5th Division, who will direct
the Executive Engineer at

Bangalore to expedite the submission
of the claims & call for
by the expediting the incident.

Spool & George
18th July 1865

Wd

To the Superintending Engineer
5th Division
in July 1865

21st 2064
21st 2064

9/11

W 1865 Dep^{ty}
Secy of Govt for July
No 2585

Secy of Govt in the
Mil^y Dept^y
Of 11 } July
Rec^d 14 }

No 2534

Communicating
Minute by His Ex^{ty} the
President with Memo.
of Instructions to the
Ex^{ty} Comd^r at Bangalore
relative to the buildings
and other works required
for ^{the proper accommodation of} ~~the~~ the whole
of the Military Es-
tablishments at that
Station -

No 474 475

With an Order
No 2064-185 July 1865