

*Proceedings of the Madras Government, Public Works Department,
27th March 1877. No. 1,046.*

Read the following papers:—

No. 682. From R. F. CHISHOLM, Esq., F.R.I.B.A., Consulting Architect to Government, to the Secretary to Government, Public Works Department, dated Chepauk, 9th February 1877, No. 819.

I HAVE the honor to forward you plans and estimates for building a new Lying-in Hospital and for converting certain dwelling houses and other buildings into subsidiary structures according to the instructions conveyed in G.O., No. 816, dated 30th March 1876.

2. The estimate now submitted provides for executing the following works:—

1. The construction of a Lying-in Hospital in five separate blocks.
2. The construction of four double and two single cottages for contagious diseases.
3. The construction of a rest-shed.
4. The construction of an out-door dispensary.
5. The construction of the following out-buildings:—
 1. Laundry.
 2. Cook-rooms.
 3. Dead-house.
 4. Servants' latrine.
 5. Latrine for Europeans.
 6. Do. for Natives.
 7. Boundary wall and gates.
6. The conversion of the existing buildings into the several offices detailed on the general plan.
7. The laying on of an adequate water-supply over the grounds and in the buildings.
8. The filling in of the existing tank on the east side of the site.

Site.—The site is situated in the centre of Madras and contains an area of about 18 acres. It is bounded on the south by the Pantheon road, on the east by the Police Commissioner's road (both much frequented thoroughfares), on the north by private property, and on the east by the compound of the Public Museum. I propose, with the concurrence of the Medical Officers consulted, to close the small road which separates the two compounds.

Winds.—The prevailing winds are shown on the general plan S.E. Annual average 596 hours and N.N.E., 422 hours. The latter being the wet wind.

Lying-in Hospital.—The Lying-in Hospital consists of five separate blocks of two-storied buildings connected by open covered-ways. The central block contains the labor wards, the remaining four blocks forming the hospital. Each floor of each block will contain two wards of four beds separated by a scullery and nurses' room. These wards communicate by the corridors with the central labor wards. Bed-carriages will be provided so that patients can be removed as gently as possible to the labor wards and to the bed-lift if necessary. Each block is provided with a spiral staircase for the convenience of servants only, and a small lift for dinners and general use. The whole of the details, dimensions of wards, positions, and other arrangements

were made in consultation with the Surgeon-General, Medical Department, and the Superintendent of the Lying-in Hospital.

General style of architecture.—I have treated the general features of the structure in a common-sense way, without an attempt to introduce any particular style of architecture, as I conceive that such an attempt would be costly and objectionably ostentatious, at the same time I have put together the very simple features of the design with due regard to appearance. The projection of the floors beyond the walls as “balcony’s,” with the neat iron handrail marking distinctly the exact position of each floor, will give that architectural character to the building which its size demands, and, without which, it would appear lean and starved. Such detail, as it may be absolutely necessary to introduce, will tend towards classical art.

Materials.—The building will be constructed of brickwork in mortar throughout. The exterior will be pointed, and the interior plastered and washed in approved tints. The woodwork will be teak. The roofing of tiles and terrace, and the flooring of asphalt with a chunam border. The openings for doors and windows will be provided with venetian casements only.

Cottages for Contagious Diseases.—These cottages are simple structures containing one or two beds each. They will be connected with each other and with the main building by openwork corridors. The several sizes of these wards and all other characteristics have been adopted from approved buildings actually in use at the present Lying-in Hospital.

Rest-shed.—This building answers the purposes of an observation ward in an ordinary hospital. It is to be constructed on the model of a building which I constructed in the Monegar Choultry, and which in my opinion has scarcely met with the attention it deserves. It is a perfectly permanent form of construction, and combines many advantages of ventilation, &c., with great economy.

The Out-door Dispensary.—The Government purchased the site at the time when a church was in process of construction. As the gothic element was not stronger than is usual in Eastern structures built in this style, I have not found it difficult to efface the ecclesiastical element, and so to provide a large and commodious out-door dispensary at the moderate cost of Rupees 7,129.

Out-buildings.—The new out-buildings will consist of a double cook-room, a spare cook-room, a wash-house, a dead-house, and latrines. All these buildings have been designed with due regard to economy and to the actual working of the existing institution.

Conversion of the existing buildings.—It will be observed on referring to the general plan that nothing on the site is knocked down or removed, all the existing buildings being carefully utilized. Were it not for this fact it would be impossible to provide the accommodation shown on the plan for the sum of Rupees 1,71,502.

Water-supply and Filling Tank.—The estimate provides for laying on water all over the grounds and buildings according to the plan. The water will in the first place be led from the municipal main and afterwards raised by force-pumps to tanks on the roofs of the several buildings. The Surgeon-General does not approve of this arrangement, and considers a separate water-tower preferable (see his memorandum, No. 937,

appended). I fully concur with his remarks, having selected the particular form of water-service introduced on the score of economy.

It is thought advisable by the Medical authorities to fill in the existing tank on the south side of the property.

No. 414.

REFERRED to the Surgeon-General, Indian Medical Department, for remarks with copy of note by his Grace the Governor.

(Signed) W. FAREWELL, Colonel,

Ag. Joint Secretary to Govt., P.W.D.,

Buildings and Roads Branch.

20th February 1877.

No. 682-A. From Surgeon-General G. SMITH, M.D., Surgeon-General, Indian Medical Department, to the Secretary to Government, Public Works Department, dated Fort St. George, 2nd March 1877, No. 139.

IN returning the plan and estimate of the new Lying-in Hospital, I have the honor to submit the following remarks in connection with my previous memorandum and with the note by His Grace the Governor.

2. One reason which appeared to me to be of importance when drawing up the memorandum commented on, in which I suggested the erection of a water-tower in preference to the water distribution arrangement projected by Mr. Chisholm, had reference to the objectionable character of the Red Hills water, which, at most times, but specially in seasons of drought, is not only most offensive to the eye and to the nose, but dangerous to health from the large admixture of organic matter, the result of decomposing mollusca. Molluscous animals, I am informed, are present in the distribution pipes in large number, alive when the pipes are full and dying when the water-supply diminishes. It is to their decomposing remains that the abominable and animalized odor of the water, so familiar to residents of Madras, is principally due.

3. By adopting the arrangement of a water-tower it becomes possible to construct in connection with it a settling reservoir, in which the water may be freed from silt, and from which it might be raised by force-pumps to a supply reservoir at the required elevation; the process of filtration being effected, not in the tower, but by Mr. Namara's or by silicated carbon filters, adapted to certain stand pipes on both floors of the hospital.

4. His Grace points out the risk of total loss of water-supply to the hospital in the event of any serious defect taking place in this arrangement, or in any essential part of it, and on reflecting over this practical suggestion it has occurred to me that, possibly, some of the advantages of both plans might be secured, and some of the disadvantages eliminated by an arrangement, under which the hospital might be provided with water through separate pipes communicating with the main. The suggestion, if carried out, would probably increase the expense. Experts alone can determine its feasibility.

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5. The proposed modification is as follows:—

Let two branch pipes convey water from the main to the hospital, the larger of the two supplying water for all purposes, cooking and drinking excepted, to the ground floor; the smaller of the two conducting its stream to the water-tower, whence, raised by pumps to the upper reservoir and freed from silt, it would be distributed for all common uses to the upper story, and for cooking and drinking purposes to both stories, filters being attached to selected taps or stand-pipes. By this or some similar arrangement the employment of force-pumps—always liable to get out of order in this country—will be restricted to the few required at the water-tower, and the provision of cisterns on the roofs of the buildings, certain sooner or later to leak, will be avoided. The double source of the water-supply would secure an alternative should one of the arrangements now suggested fall out of repair.

No. 682-B. From Surgeon-Major W. R. CORNISH, F.R.C.S., Sanitary Commissioner for Madras, to the Chief Secretary to Government, dated Madras, 13th March 1877, No. 194.

In returning herewith the plans and estimates for the new Lying-in Hospital (the former prepared by the Government Architect after consultation with the Surgeon-General, Indian Medical Department, the Sanitary Commissioner, and Superintendent of the Hospital), I have the honor to state that I quite concur in the suggestion made by His Grace the Governor that the question of water distribution to the hospital may be left for consideration hereafter.

2. The present unsatisfactory arrangements for the distribution of water to the town population in an unfiltered and unpurified state *must* be remedied, and it seems scarcely necessary, therefore, to consider arrangements of this nature for the Lying-in Hospital alone. I may mention also that there is good drinking water obtainable from a well on the premises, and which can be used pending the improvement in the town water-supply.

No. 623.

TRANSFERRED to the Public Works Department for disposal.

FORT ST. GEORGE,
14th March 1877.

(Signed) D. F. CARMICHAEL,
Officiating Chief Secretary.

No. 683.

ORDER THEREON, 27th March 1877, No. 1,046.

CIVIL WORKS, No. 63-A.

(a) Heads of Service.—Provincial.
Fund.—Ordinary.
Class.—Original Works.
Main-head.—Civil Buildings.
Sub-head.—II, Medical Department.
Section.—i, Hospitals and Infirmaryes.
Name of Work.—Lying-in Hospital at Madras.
Amount.—Rupees 1,71,502.
To be carried out by the Public Works Department.

The plan and estimates undermentioned, aggregating Rupees 1,71,502, for constructing a Lying-in Hospital, and converting certain dwelling houses and other buildings acquired for the purpose into subsidiary buildings for the institution at Madras, are sanctioned.

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	RS.	No.
Hospital wards in five blocks with covered-ways ...	1,07,248	2 1/2
Four double and two single cottages with covered-ways ...	7,857	2 1/2
Rest-shed ...	3,225	2 1/2
Dispensary for out-patients ...	7,129	2 1/2
Laundry ...	4,767	2 1/2
Cook-house ...	2,440	2 1/2
Dead-house ...	1,247	2 1/2
Servants' latrine ...	956	2 1/2
Latrine for Europeans ...	1,520	2 1/2
Latrine for Natives ...	2,864	2 1/2
Medical Officer's quarters and out-houses ...	6,637	2 1/2
Matron's and Nurses' quarters and Medical Stores ...	2,000	2 1/2
Apothecary's quarters ...	500	2 1/2
Native Nurses' quarters and Matron's stables ...	946	2 1/2
Kitchen for Native Nurses ...	978	2 1/2
Boundary wall, gates, roads, and gravelling ...	8,748	2 1/2
Filling in tank ...	1,000	2 1/2
Drainage ...	1,000	2 1/2
Water-service ...	10,440	2 1/2
Total ...	1,71,502	

2. The Government have carefully considered the remarks of the Surgeon-General regarding the arrangements for the water-supply. They hope that before the hospital is complete, effective measures will have been taken to obviate the very serious objection to the use of the Red Hills water without filtration. The plan of the water service proposed by the Consulting Architect will therefore be sanctioned provisionally; and, when the improvement of the town water-supply has been definitely decided upon, can be so modified as to secure both good service and economy in construction.

3. The sum of Rupees 67,077 has already been disbursed for the cost of the site and buildings, and is not included in the present estimate.

4. The Consulting Architect will carry out the work, for which provision of funds to the extent of Rupees 50,000 has been made in the outgoing Provincial Budget; it being understood that the water-supply arrangements remain in abeyance. Meanwhile the well on the premises should be rendered as perfect as possible as an auxiliary source of supply.

5. The above sanction has been registered as Provincial No. ²⁸⁵/₁₋₁₉ W of 1876-77 as shown above.

(True Extract.)

(Signed) W. FAREWELL, Colonel,
Acting Joint Secy. to Govt., P.W.D.,
Buildings and Roads Branch.

To the Consulting Architect.

„ District Engineer, Presidency.
„ Examiner of Public Works Accounts.
„ Public Department.

Exd. T. D. Ryan.
Spare Copies

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337,

Gt. of 1877: Madras.
PUBLIC WORKS.

To

The CONSULTING ARCHITECT,
&c., &c., &c.

Dated March 27th.

Issued

Recd.

Encl.

G. O., 27th March 1877, No. 1,045.

MARCH

Nos. 682-683.

Lying-in Hospital at Madras.—The plan and estimates aggregating Rupees 1,71,502 for constructing a — sanctioned with remarks.

GOVERNMENT OF MADRAS.
PUBLIC WORKS DEPARTMENT.

17th October 1877, No. 1,090 W.

Buildings and Roads.
Civil Works.

Read the following papers :—

No. 176.	From the Consulting Architect to Govt., dated 4th July 1877, No. 1,054.
No. 176-A.	From " " " " 26th " " " 1,074.
No. 176-B.	From " " " " 7th Sept. " " 1,133.
No. 176-C.	From the Collector of Madras, " 22nd " " " 264.
No. 176-D.	From the Consulting Architect, " 3rd Oct. " " 1,171.
No. 176-E.	From " " " " 16th " " " 1,187.

No. 177. ORDER THEREON, 17th October 1877, No. 1,090 W.

THE estimate, amounting to Rupees 4,275, for constructing a new road connecting Hall's Road and Casamajor's Road in lieu of that closed by the works of the Lying-in Hospital at Madras, is sanctioned.

2. This sanction will be an increase to the general estimate for the Hospital buildings, which will now stand at Rupees 1,75,777.

3. His-Grace the Governor in Council cannot however but view this latter addition as a most wasteful expenditure, which might have been avoided by placing the building a few yards further east, and thus not have interfered with the road along the Museum compound.

4. This sanction has been registered as Provincial No. 184 B of 1877-78.

(True Extract.)

(Signed) E. A. FOORD, Colonel, R.E.,
Secretary to Government, P.W.D.

To the District Engineer, Presidency.
" Consulting Architect.
" Examiner of Public Works Accounts.
" Department.

Manuel

Ed. E. C. Shunker.
Spare Copies

Public Works Department, 188 -8 .

Current No. 1992

Letter No. 1043

Dated the 5th March 83

From the Comdg. Architect

Note of Remarks.

1. The accompanying estimate, Rs 258, provides for lining the main roof of the New Lying-in Hospital with zinc.
 2. The necessity of zinc lining arises from the Supt of Hospital being of opinion the roofs would again leak as they did last year after a heavy fall of rain. The Comdg. Architect considers the tiles have seasoned in the interval and are now sound but defers to the opinion or rather wish of the Supt.
 3. The abstract has not been countersigned
- 8th March 83
R3/H

BUILDINGS AND ROADS.
CIVIL WORKS.

Est. of 1877 Madras

PUBLIC WORKS.

THE DISTRICT ENGINEER,
MADRAS.

1880-81.

1880-81.

1880-81.

OCTOBER.

Nos. 176-177.

— Summary.

The road connecting Hall's Road and Gosa-
mper's Road is now closed by the works
of the Lying-in Hospital at Madras.
Expenditure with remarks the estimate, amount-
ing to Rupees 4,275, for constructing a —

C. No. 1992.

Note by Budget Section.

Work	Remarks and References.
erecting the roof of Lying-in Hospital wards made up with zinc and covering with with wire netting	

Fund	Provincial
Service Head	Civil Building
Departmental Head	Original work.
Amount of Estimate	Rs. 2581
Expenditure in previous year	" "
Allotment in current year	" "
Balance required to complete	" 2581

Total Rs...

Note of available funds.

The works connected with the Lying-in Hospital made up are, it is presumed, completed and the Completion Report now under preparation in the Consulting Architects Office. In that case the present estimate need not be considered supplementary, but treated as an Independent work. As six lakhs of rupees have been sanctioned from the Provincial fund, it is not known whether the sum of Rs. 2581 applied for can be given this financial year.

CH
Budget Clerk.

No 2581 because he
will not risk a positive
opinion -

Sum 7/3
I think the Comptroller
and Auditor should
give a definite opinion
as to whether the
additional zinc lining
is essential or not.

7/3
He is not justified in
asking for to spend

Note by Budget Section.

To Dr. J.
For orders. with
reference to the C.A.'s
letter. C.
7/3/83

W
It seems to me that
this is rather throwing
an unfair responsibility
on the Superintendent -
It is the Comptroller
and Auditor's business to
advise for whether
the roof will or will
not leak, and he
is not justified in
asking for to spend

1043 Consulting Architects Office
Calcutta 5th March 1883.

From
The Consulting Architect
to Government
To
The Chief Engineer P.W.D.
Roads and Buildings branch.

Sir,
I have the honor to submit for your consider-
ation an Estimate amounting to Rs. 2581
for lining the main roofs of the New Lying-in
Hospital with zinc.
2 I designed this building before I had brought
my present tile into a useful condition and
had consequently to make use of the ordinary
tiles. Unfortunately while green, unusually
heavy rain was experienced last monsoon, and
the rain percolated though after 3 days conti-
nuous wet. I do not anticipate (now that
the tiles are seasoned) another such occurrence
but the Superintendent has expressed a desire
to place the ^{matter} beyond all doubt, hence
I submit this Estimate which provides
a zinc lining throughout to be painted
on the inside. The item for wire netting
Rupees 309 is at the suggestion of the

Enclosures.
1 Abstract.
1 Duplicate
Abstract

Municipal Engineer to cover the tanks
and thus prevent crows and other birds
from dropping bones &c into them.

Rupees 1000 can be expended during
the month.

I have the honor to be

Sir

Your most obedt. servt.

Mushtoon

Long aash to Government

2/24/13

No 568Cdygth March 83

Returned to the Consulting Architect to Govt. with request that he will give a definite opinion as to whether the additional zinc lining is essential or not.

(By order)
J. B. [Signature]
Major R. E.
Off. Secy to Govt

Co. 1046-17.3.77
- 1090. 17.10.77

10 March 1880
H. 1080.

Returned to the Secy. of the
Eng. - The zinc lining is
not more essential in this case
than in the case of any other
kind of roof. The roof leaks
as much but we have the
all roofs of this description
[Signature]
Eng. Archt. to Govt.

Roads and Buildings.

From [Signature] No. 2147
The Consulting Architect
to Government.

The Chief Engineer, P.W.D.
Roads & Buildings branch

Recd 10/3/83
No 1043
Dated 5th March 1883.
Received

No of enclosures 2

The roof of the New Dispensary
in Hospital.

With the Government

2147
To Govt

For orders
with reference
to the Consulting
Architect's reply

As
10/3/83

Under the circumstances
stated the Govt are
not prepared to
sanction the estimate
submitted.

[Signature]

831W Public Works Department.

MADRAS GOVERNMENT.
Under date 11th 13 March 83.
Read the following

1043 dy 5th March 83
568Cdygth
1080 dy 10th

Under the circum-
stances stated, the
Govt are not prepared
to sanction the estimate
submitted.

[Signature]

[Signature]

12/3/83

No 831 W d/13-3-13

Setel. in Receipt Book

McLaren: Procht: W. 1911.