

No. 2754 C. d. 23-8-94
1551 W. d. 23-6-94

Subd.
B.

No. 2334 W. d. 14 Sept. 1894

Communicated to
the Subg. Engineer
at Madras
with reference
to his letter No. 644 M.D.
dated 17 August 1894.

Encls 1
Dagto: 7.9.94
Secy at 004 4/9/94

Copy
10-9-94
5

S.E. VI circle
S. VI Circle

DESPATCHED
15 SEP. 94

INDEXED
1/10

J.E.C.
1894

Oct received 3 Sept 1894

From

J. W. Ashpitel Esq.
Executive Engineer P. W. D.

To
The Chief Engineer P. W. D.

Sir,

With reference to your endorsement
No. 2754 C. dated 23 August 1894 on Superintending
Engineer's circular letter No. 644 M.D. dated 17th
August 1894, I have the honor to inform you that
the section forwarded with my letter printed with
G.O. 23 June 1894, No. 1551 W. was merely approving
and will probably require modification according
to the materials available.

2. Taking the Executive Engineer's remarks
in order.

Firstly - As I have not seen a drawing of the pillar
which carries the apparatus I cannot say how it
should be fixed to the ring but I imagine that there
will be no difficulty - The arrangement of the girders
carrying the light room floor is the ordinary plan
adopted by Trinity House and I do not think that
it is unnecessarily expensive - The ring should be
designed with reference to the base of the existing
column.

Secondly - The concrete floor forms the floor of the
service room and the steep staircase below is designed
to

to give sufficient headway. There is no particular reason why any other form of fire proof floor should not be constructed if preferred. Buddapak slabs were shown in the plan as being a convenient material to use but there is no objection to any other equally suitable material being substituted. The sketch given by the Executive Engineer is inaccurate as the iron grating should form the light room floor which should not be supported as shown. ~~It~~ occupy the centre of the proposed service room with an iron column and spiral staircase would to a large extent, render it useless for the purposes for which it is required.

Thirdly - No doubt an iron pedestal would be far superior to the proposed masonry lantern base and is the usual type of lantern pedestal at all new stations. The existing lantern at Panthen is, however, reported to be very old and not worth the comparatively large expenditure required for an iron pedestal. Masonry pedestals have been provided at many stations and the thickness of one foot is slightly in excess of the standard dimension. The weight of the lantern is probably about 1400 lbs and I do not think the action of the wind would have the effect anticipated by the Executive Engineer. There is no objection to the substitution of an iron pedestal if the cost is not prohibitive and provided that the lantern, which is obsolete in form, is

is considered worth it.

Fourthly - On further enquiry it is reported that the lantern said to be available is of the 5th Order. It is therefore no larger than the existing lantern and the proposed transfer is unnecessary. Detailed drawings of the base of the existing lantern do not appear to be available, but there will probably be no difficulty in refixing it in the same way as before.

3. I enclose a specification for the girders carrying the proposed light room floor.

I have the honor to be,
Sir,
Your most obedient Servant

Wash Patel
4/19/94
Executive Engineer PWD

Forwarded

Prudhakrishnan Colonel P.E.

Chief Engineer for Irrigation

Chas. ...

158

P. W. CURRENT No. 6733

No. 2754 of 23-8-94
1551 W of 23-6-94

Encls 1
Regd: 7.9.94
Recd at 80404 (9/94)

58
7
51
9
60

[Handwritten signature]

No. 2334 W. d. 14 Sept. 1894

Communicated to
Communicated to
the Subg. Engineer
the Subg. Engineer
VI circle with reference
to his letter No. 644 d.d.
dated 17 August 1894.
dated 17 August 1894.

[Handwritten signature]

[Handwritten signature]

S.E. VI circle
S.E. VI circle

DESPATCHED
15 SEP. 94

INDEXED
1/10

J.E.C.
1/10

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Ootacamund 3 Sept 1894

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J. W. Ashpitel Esq.
Executive Engineer P. W. D.

To

The Chief Engineer P. W. D.

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3. I enclose a specification for the girders carrying the proposed light room floor.

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

W. H. Patel
4/9/94
Executive Engineer PWD

Forwarded

Arundel. Buchanan Colonel R.E.

Chief Engineer for Navigation

No. 2754 cal 23-8-94
1551 W of 23-6-94

Handwritten initials

No. 2334 W. d. 14 Sept. 1894

Communicated to
Communicated to
the Substg. Engineer
the Substg. Engineer
VI circle with reference
to his letter No. 644 d. d.
dated 17 August 1894.
dated 17 August 1894.

Encls 1
Regd: 7.9.94
Recd at 0040 4/9/94

Handwritten initials
copy 10/9/94

S.E. VI circle
S.E. VI circle

DESPATCHED
15 SEP. 94

INDEXED
1/10

J.E.C.
1894

8/11/94
the order

Consulting

On 8-1
6733/94

12 20/9

Specification

Floor girders - The girders of the light room floor to be constructed of plate and angle iron $\frac{1}{2}$ inch thick neatly bent to the required curves, put together with a slight rise at the center and strongly riveted together with $\frac{5}{8}$ inch rivets placed $3\frac{1}{2}$ " apart center to center; the heads to be neatly cupped and finished, all the rivet holes to be drilled true and the whole to be neatly finished as the girders will always be exposed to view. The radiating girder to be connected with the central ring $\frac{1}{2}$ inch thick by $\frac{1}{2}$ inch cheek plates bent to fit between each flange. The angle irons forming the upper and lower flanges of the radiating girders to be in one length, bent round the central ring and connected with it, the cheek plates and the angle iron of the next girder. The central ring and inside angle iron rings for strengthening the same to be neatly and soundly welded.

W. H. P. K. L.
Executive Engineer P.W.D.

6733

CAW

Papers forwarded
as ordered.

S. I. office has
not returned the
original papers
forwarded with
on 27.5.24 C & 23.8.24.
M. S. J. says they are
at Orléans.

Cu
S. J. W. K.

23RD JUNE 1894, No. 1551 W., PUBLIC WORKS.

GOVERNMENT OF MADRAS.
PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

READ—the following papers:—

From Commander H. A. STREET, R.I.M., Acting Presidency Port Officer, to the Chief Secretary to Government, dated Madras, 6th March 1894, No. 690/67 G.

With reference to G.O., Marine, R. No. 189, dated 31st October 1893, I have the honour to acquaint you, for the information of the Government, that the Executive Engineer, Madura district, visited the Lighthouse at Pámban with me during the early part of December last and that the estimate and plan of the alteration to the lighthouse which I now forward for sanction have been prepared in accordance with the understanding then arrived at. The cost of the work, Rupees 1,680, will be a general charge against Port funds of the Eastern Group districts.

2. The sum has not been provided in the budget estimate of 1894-95 owing to the information required regarding the probable cost of the work not having been furnished until after the budget had been submitted and there being at the time some uncertainty as to when the work could be taken in hand.

No. 512, Marine.

It is requested that, if not already done, Mr. Ashpitel may be consulted in the matter and his remarks submitted.

14th March 1894.

(Signed) J. F. PRICE,
Chief Secretary.

From Commander W. J. POWELL, R.I.M., Presidency Port Officer, to the Chief Secretary to Government, dated Madras, 12th June 1894, No. 690/219 G.

In forwarding a plan and letter from Mr. Ashpitel in connection with the raising of the Pámban Lighthouse lantern,* I have the honour to request the sanction of Government to the preparation of an estimate in accordance with Mr. Ashpitel's design which meets all the requirements of the case.

2. With the alterations designed in the accompanying plan, the light, which under present defective conditions has burnt fairly well, will fully meet the wants of the port and it will not then be necessary to carry out the suggestion made by Mr. Ashpitel in paragraph 10 of his letter, *i.e.*, to send the former Hope Island light to Pámban.

3. The old Hope Island lantern is now being set up with a view to experiment with the Lindberg Trotter occulting apparatus. It is not proposed to utilize this lantern at Coondapoor—*vide* my No. 1484/161 G., dated 25th April 1894, and No. 1484/184 G., dated 17th May 1894. It will later on be required for Tellicherry—

vide my No. 1693/168 G., dated 5th May 1894. The former estimate for raising the lantern at Pámban amounted to Rs. 1,680; the present one will probably be somewhat higher.

ENCLOSURE.

From F. W. ASHPITEL, Esq., Assistant Chief Engineer for Irrigation and Under Secretary to Government, Public Works Department, Irrigation Branch, to the Presidency Port Officer, Madras (through the Chief Engineer for Irrigation), dated Madras, 21st May 1894.

With reference to your letter No. 690/50 P.W., dated 17th March 1894, I have the honour to return herewith the plans and estimate connected with Pámban Lighthouse with the following remarks.

2. The optical apparatus is of the 4th order (fixed) and probably has an intensity of about 400 candles with a corresponding range of about 14 miles. The height of the focal plane is 97 feet above high water level, which height is already slightly in excess of requirements. On this ground and also owing to the remarks by Mr. Douglass regarding the faulty design of the tower, I do not think any raising is desirable.

3. The object of the proposed alterations is to provide a service room and to improve the ventilation. The former has, in the design submitted, been effected by raising the tower, but the latter has not been improved either by providing windows in the service room or by improved ventilators in the lantern pedestal and roof. The obstruction to light by both lantern bars and outside railing also remains a maximum and unnecessarily great, as there is not the slightest reason why the lantern should not be provided with a masonry pedestal and the outside railing fixed below the level of the top of the pedestal so as not to obstruct the light.

4. There is a great deal of unnecessary wood work in the estimate, all of which may with advantage be omitted.

5. I enclose a plan showing a proposed approximate section which I have prepared from such details as are available. It is not an easy matter to arrange for a service room in a tower of such small diameter as Pámban Lighthouse without considerable alterations to the existing building. In order to provide headway the existing staircase must be demolished for a certain distance below the proposed service room floor and a steeper staircase provided; otherwise it will be difficult to enter the service room by the opening A. This steeper staircase will also permit of a door being fixed as shown to exclude draughts from the service room and lantern.

6. Above the service room, the floor of which may conveniently be of cement concrete, access to the light room may be by an iron spiral ladder which should be fixed so as not to interfere with the three windows in the service room which ordinarily will form the chief source of supply of air to the burner and lantern through the gratings which form the light room floor.

7. I have not intended to do more than indicate what in my opinion the general arrangement of the tower should be, as I do not know details of the existing staircase or the position of the last step at + 98'12". The general idea is to make access to the lantern as easy as possible and to provide means of regulating the ventilation.

8. The door in the lantern pedestal and the entrance A to the service room should be on the land side, the former facing the point of the compass from which least wind is expected and the latter located so that the keeper shall have ample space to tend the light and will not be obliged to pass between the light and the sea when entering or leaving the lantern.

9. The spiral ladder in the service room should be arranged to occupy as little space as possible and may conveniently be fixed over the entrance A.

10. Before the matter is finally dealt with, I would point out that the existing 6th order lantern at Pámban is too small for the apparatus but of sufficient size for the 6th order apparatus proposed to be installed at Coondapoor. I would therefore suggest that the 4th order lantern said to be available for Coondapoor may be transferred to Pámban and the 6th order lantern now at Pámban installed at Coondapoor. Before sending the 4th order lantern to Pámban, it may be as well to have it thoroughly overhauled and possibly fitted with an improved roof ventilator.

No. 292 M.

Forwarded.

OOTACAMUND,
31st May 1894.

(Signed) R. R. E. DRAKE-BROCKMAN, Lt.-Col., R.E.,
Chief Engineer for Irrigation.

No. 1230, Marine.

Approved and transferred to the Public Works Department with the request that a revised estimate for alterations according to Mr. Ashpitel's design may be prepared at an early date.

(Signed) J. F. PRICE,
Chief Secretary.

18th June 1894.

ORDER—dated 23rd June 1894, No. 1551 W., Public Works.

Communicated to the Superintending Engineer, VI Circle, in view to the preparation of the required estimate.

(True Extract.)

(Signed) J. PENNYCUICK, Colonel, R.E.,
Secretary to Govt., P.W.D.

To the Superintending Engineer, VI Circle, with enclosures.
„ Marine Department.

Ed. C. A. Manisawmy.
Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of {1894} Madras.
PUBLIC WORKS.

Dated June, 23rd.

Recd.

Encl.

G.O., 23rd June 1894, No. 1551 W.

JUNE.

Pamban Lighthouse

Marine endorsement on Presidency Port officer's letter for the preparation of revised estimate in accordance with Mr. Ashpitel's design for alterations to the —, communicated to Superintending Engineer, VI Circle.

Government of Madras.

1894.

P. W DEPARTMENT.

CURRENT No. 6158.

From

The S. E. VI Circle.

No.

644 M.D.

Dated

17 - 8 - 94

Received

18 - 8 - 94

ENCLOS. 1

SUBJECT.

Submitting copy of
letter from the Ex. Engrs.
Madura Div: suggesting
certain alterations in
the sanctioned plan
for the Light house at
Pamban.

DISPOSAL.

No. 2754 dated 23 Aug. 94

Lo E.S.

For any further
remarks Mr. Ashpitel
may wish to offer.

(Id. J. P.)

W.

DESPATCHED

24 AUG. 94

Pamban Lighthouse

No: 2754 C d/23-8-94

INDEXED
28/8

No: 2985 C

From

To

Executive Engineer's Office
Madura Dy. 1st August 1894.

J. H. Medlicott Esquire
Executive Engineer
Madura Dy.

The Superintending Engineer
Trichinopoly

Reference: your No. 416 D. D. dated 6 July 1894.

Sir

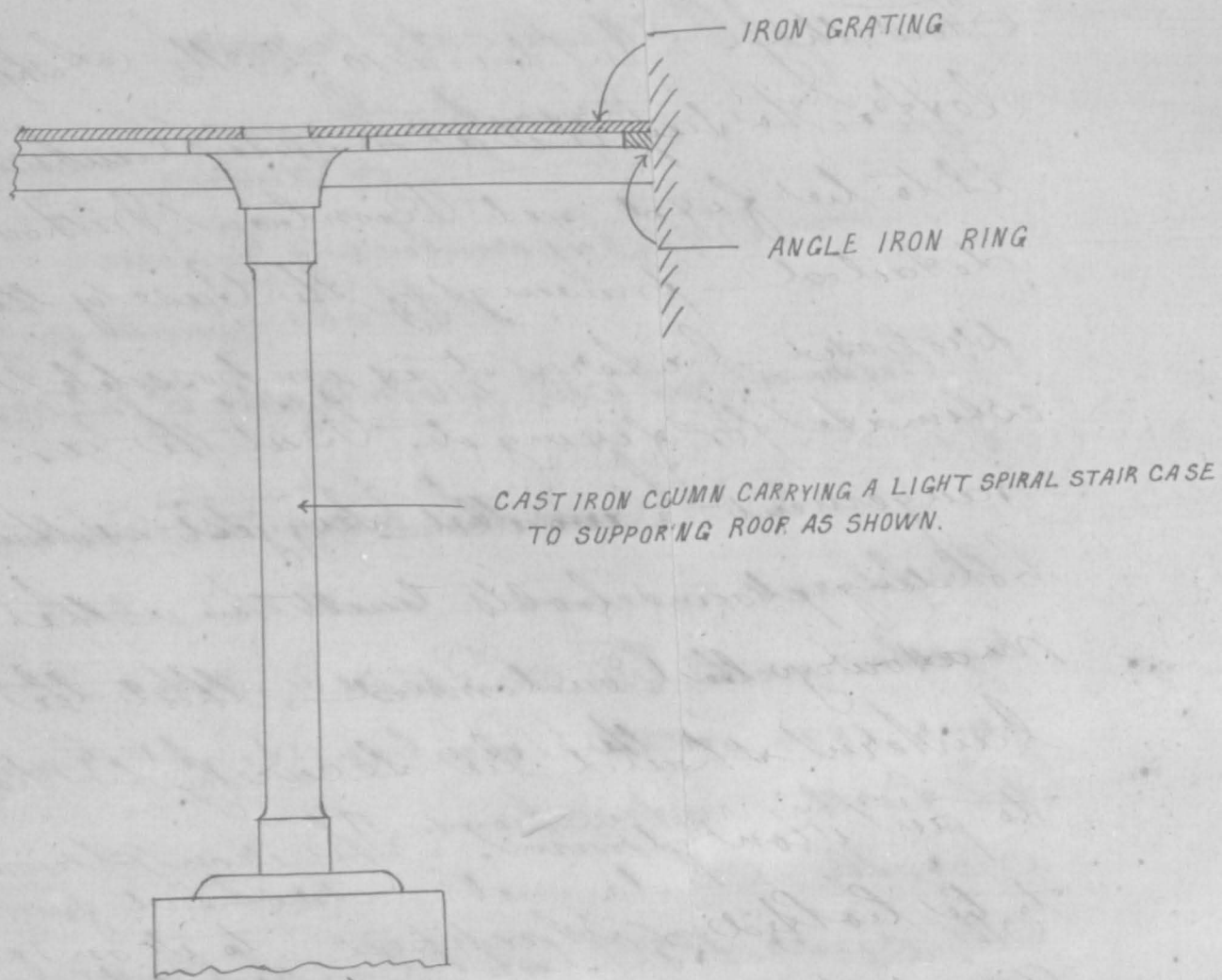
I have the honor to return
the plans received with the above
together with G.O. No. 1551 D. dated 23rd
June 1894 on the Pamban Light House
for further instructions.

Firstly. I do not understand from
Mr. Garrett's Plan how the Cast Iron
Pillar is fixed to the "iron Ring". I
cannot find any accurate or
large scaled drawing of the
pillar. The whole arrangement
seems to me unnecessarily expensive.

Secondly. I do not understand
the Cement Concrete floor nor the
pillar below it with the Giddap-
pah Slabs.

A light spiral staircase
supporting a light iron floor
would be cheaper and less
troublesome

troublesome to build.
See Sketch in margin.



Thirdly. The arrangement for fixing the lantern to the masonry is not shown. Holding down bolts would shake a foot wall, even if built of masonry in cement, to pieces. The 1 foot wall on top also takes up a great deal of room. An iron drum is all that is required (See plan of Star Island Light House enclosed). Such a drum could easily be bolted firmly down to the solid masonry of the light house. The action of the wind on the lantern must

must be very
essential to the
the light house
Fourthly.

letter. He says
is to be fixed
detailed plan
proposed lantern
estimate for
arrangement
holding down
masonry lantern
to an iron
to be bolted

* Supporting floor
of Service Room.
Rings. Support.
Securely bolted
of the light house.
Please return
instructions

No. 2754 C. d/23 August 94.

Log. I.

For any further
remarks Mr. Ashpitel
may wish to offer.

W
2:30

CW 113
2/8 94

(True North)
DUST

CP

No. 644 Ind.

OFFICE

Trich

FROM

Mo
THE SUPER

TO

THE CHI

SIR,

ENCLOSURE

Copy of letter

Keith,

dated 23

honor to fo

No. 298 da

The Excuse

Division,

points are

2. *Th*

For alternate

House has

prepared

Mr Asa

Ashfield

Carroll's

Gardner,
J. J. F.

Aug 10

very great. It is very close
and it is securely fixed to
the

In para 10 of the Appendix
it that a 4 order lantern
at Pamban. Without
drawing of the case of the
lantern it is impossible to
fixing it. But the per.
I would suggest is that
a bolts built in the
condemned, that the
could be securely bolted
to drum. The iron drum
or strapped to it on
the roof and floor of
the lower ring being
fixed into the masonry
base
enclosures with your

I have the honor to be
Sir
Yours most obed^t Serv^t
J. H. Medlicott.
Executive Engineer
Madras
Copy

Waddy Major R. C.
Superintendent of the
17-8-94.



L'enclosure &
S. E. T. Lenclos
No. 644 Ind
Dt. 17 August 1894.

Copy of letter from
the Exe. Engineer,
Madura Du

Ans. 1
6158/94

L'enclos: & No: 644 Ind.
17-8-94

2616
2621 —

2631 —

OF THE SUPERINTENDING ENGINEER,

6TH CIRCLE,

Copy. 17 August 1894.

8-17-

for A. S. Boddy, Esq.,
SUPERINTENDING ENGINEER,

6th CIRCLE.

CHIEF ENGINEER,

P. O. Department.

Reference to S. E. T. 15512
June 1894. I have the
enclosed copy of a letter
dated 1st August 1894. from
the Engineer, Madura
in which several
points raised
to revised estimate
as to the Pamban Light
have been ordered to be
in accordance with
the design. The
has adopted the
design of a bruted
carry a cast iron
pillar

P. W. CURRENT No. 6158

P. W. D. 6th CIRCLE.

FROM

THE SUPERINTENDING ENGINEER,

2616

2621 —

CHIEF ENGR. 6TH CIRCLE.

TO

THE CHIEF ENGINEER,



2631 —

No. 644 Ind.

Dated 17 August 1894

Received

Enclosures. 1

Light house at Pam.
haw — Forwarding
Copy of letter from the
Engr. Madras Dr. sug.
-gesting certain altera-
-tions in the sanctioned
plan for the —

1551 W of 23-6-94.

5. 25295
R 23/8