

(1) Number of pages 18  
(2) Date of repair \_\_\_\_\_  
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# TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

P. W DEPARTMENT

1911. W

|          |               |                  |
|----------|---------------|------------------|
| G.O. No. | 1912 W        | Press.           |
| B.P. No. | <u>32</u> - W | Mis.             |
|          | 1913          |                  |
| Dated    | 28 - 7 - 1882 | <del>191</del> . |

V. S. M.

Not to be folded or roughly handled

28TH JULY 1882, No. 1911 W., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.  
Civil Works.

No. 146-A.

READ—the following papers:—

From N. St. B. BEARDMORE, Esq., C.E., Acting Superintendent, Madras Harbour Works, to the Secretary to Government, Public Works Department, dated Madras, 15th July 1882, No. 22 W.

Referring to the note to paragraph 4 of Mr. Parkes's report on the Madras Harbour of 9th March 1882, I have the honor to forward you a plan and five sheets of sections of the injured portions of the two piers. The five sheets of sections consist of one sheet of each of the curves, one each of the outer straight portions of the piers, and one of the outer part of the inner straight portion of the north pier, showing the scour on the north side in the rubble base, which has now been filled up. Much difficulty was experienced in making this survey, the greater part of it having been made from catamarans; and the fair weather period of the last north-east monsoon was unusually short, or I should have completed a larger number of sections. The intention is to take a section at every 25 feet in the length of the pier, but there will hardly be a chance of taking more until next September or October. If the weather should not be fair enough then, there will be no further chance until February next.

No. 146-B.

*Note by the Chief Engineer, Public Works Department.*

The sections of the ruined piers of the Madras Harbour now received from the Officiating Superintendent, Mr. Beardmore, have apparently been very carefully taken at 50 feet apart along the work, and embrace the following lengths of each, commencing from the outer ends at the Harbour mouth, viz.:—

|                            | From   | To     | Total Length<br>Sectioned. |
|----------------------------|--------|--------|----------------------------|
| North pier ... ..          | 3,850' | 1,500' | 2,350'                     |
| South do ... ..            | 3,950' | 2,400' | 1,550'                     |
| Total length sectioned ... |        |        | 3,900'                     |

It will thus be seen that although about 1,000' of the shore end of the south pier (i.e., between 2,400' and 1,400') remain to be sectioned, and double the present number to be taken over all, as it is proposed to have sections at every 25 feet, it may be thought that those now submitted will admit of some useful conclusions being drawn.

2. Hitherto the Government have only had before it Mr. Thorowgood's original report made immediately after the cyclone of the 12th November 1881, and Mr. Parkes's more detailed one, dated 9th March 1882, as indicating the position of the blocks.

3. In paragraph 20 of the latter Mr. Parkes gives what he terms "a typical section of very much of the work in its present state," adding "Parts of it are necessarily hypothetical, but there is enough which is matter of actual observation to justify the assumption of the remainder. For a length of at least two-thirds of the damaged parts blocks

1 and 3 have been traced by the divers and found with slight exceptions to be undisturbed; and further on: "There is however sufficient evidence, direct and indirect, to negative the very improbable supposition of these (the inner lower blocks Nos. 2 and 4) having been undermined and thus caused the fall of the inner wall towards the Harbour."

4. As an exception to this generalization, which affects 1,200 feet of the north and 900 feet of the south pier, Mr. Parkes goes on to show that 400 feet of the first and 500 feet of the second which have been differently affected, and in these that probably both the lower blocks Nos. 1 and 2 have been slightly displaced, No. 1 being drawn away a little seawards and tilted.

5. On the positions of the lower blocks as thus determined Mr. Parkes has based his reconstruction scheme on the monolithic system. It is unnecessary at this moment to make any very detailed analysis of the sections as now submitted by Mr. Beardmore, the more so as the further sections promised later in the year will doubtless give the best continuous record which it is possible to obtain, but one can hardly examine those now furnished without being struck by the very much greater displacement of all the blocks, along both the seaward arms of the work, than one would be led to expect from Mr. Parkes's report.

6. It is true there was later in the year rather a heavy sea, but Mr. Beardmore has distinctly reported that this occasioned no further displacement of the blocks.

7. Along the south pier, with the exception of the sections taken severally at 3,800', 3,775', 3,750' and 3,725', the disturbance of all the blocks seems very great. Everywhere the piers seem to have shifted towards the Harbour and sunk with a tilt in that direction, showing that where the two lower blocks Nos. 1 and 2 are not actually displaced they have no longer a horizontal bed as indicated by Mr. Parkes's section.

8. Along the north pier the evidence of disturbance is even greater. The sections taken at 3850', 3775', and 3350' alone seem to hold out a hope that the lower blocks are sufficiently unmoved to build upon again.

9. Everywhere there has been great settlement of the work on a whole, and dragging seaward of the rubble base, coupled with other evidence confirmatory of Mr. Molesworth's opinion that the random block system of reconstruction seems the only safe one now to resort to.

10. However this may be, there would seem to be sufficient evidence in the sections now submitted to warrant delay in adopting Mr. Parkes's monolithic system of reconstruction till they have come under the notice of the home experts, who no doubt will be consulted by the Secretary of State.

(Signed) R. H. SANKEY, Colonel, R.E.,  
Chief Engineer, P.W.D.

26th July 1882.

No. 146-C.

ORDER—dated 28th July 1882, No. 1911 W., Public Works.

Ordered that the following telegram be despatched to the Secretary of State:—

"Please suspend decision Madras Harbour reconstruction pending receipt Beardmore's sections now being despatched showing displacement lower blocks greater than indicated in Parkes's report."

2. Copy of the above, with copies of the sections, will also be forwarded to the Government of India.

(Here enter No. 1912 W., dated 28th July 1882.)

(True Extract.)

(Signed) R. H. SANKEY, Colonel, R.E.,  
Secretary to Govt., P.W.D.

To the Superintendent, Madras Harbour Works.  
" Marine Department.

Exd. A. F. Goodall.

Spare Copies

BUILDINGS AND ROADS.  
CIVIL WORKS.

Gobt. of (1882) Madras.  
PUBLIC WORKS.

Dated July, 28th.

Recd.

Encl.

G.O., 28th July 1882, No. 1911 W.

JULY.

Nos. 146-A-146-C.

Madras Harbour Works.

Telegram to Secretary of State requesting to suspend decision regarding the reconstruction of the — pending receipt of Mr. Beardmore's sections showing displacement of lower blocks greater than that indicated in Mr. Parkes's report.

28TH JULY 1882, No. 1912 W., PUBLIC WORKS.

1912 W  
#3

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.  
Civil Works.

No. 146-A.

READ—the following papers:—

From N. St. B. BEARDMORE, Esq., C.E., Acting Superintendent, Madras Harbour Works, to the Secretary to Government, Public Works Department, dated Madras, 15th July 1882, No. 22 W.

Referring to the note to paragraph 4 of Mr. Parkes's report on the Madras Harbour of 9th March 1882, I have the honor to forward you a plan and five sheets of sections of the injured portions of the two piers. The five sheets of sections consist of one sheet of each of the curves, one each of the outer straight portions of the piers, and one of the outer part of the inner straight portion of the north pier, showing the scour on the north side in the rubble base, which has now been filled up. Much difficulty was experienced in making this survey, the greater part of it having been made from catamarans; and the fair weather period of the last north-east monsoon was unusually short, or I should have completed a larger number of sections. The intention is to take a section at every 25 feet in the length of the pier, but there will hardly be a chance of taking more until next September or October. If the weather should not be fair enough then, there will be no further chance until February next.

No. 146-B.

Note by the Chief Engineer, Public Works Department.

The sections of the ruined piers of the Madras Harbour now received from the Officiating Superintendent, Mr. Beardmore, have apparently been very carefully taken at 50 feet apart along the work, and embrace the following lengths of each, commencing from the outer ends at the Harbour mouth, viz.:—

|                            | From   | To     | Total Length Sectioned. |
|----------------------------|--------|--------|-------------------------|
| North pier ... ..          | 3,850' | 1,500' | 2,350'                  |
| South do. ... ..           | 3,950' | 2,400' | 1,550'                  |
| Total length sectioned ... |        |        | 3,900'                  |

It will thus be seen that although about 1,000' of the shore end of the south pier (i.e., between 2,400' and 1,400') remain to be sectioned, and double the present number to be taken over all, as it is proposed to have sections at every 25 feet, it may be thought that those now submitted will admit of some useful conclusions being drawn.

2. Hitherto the Government have only had before it Mr. Thorowgood's original report made immediately after the cyclone of the 12th November 1881, and Mr. Parkes's more detailed one, dated 9th March 1882, as indicating the position of the blocks.

3. In paragraph 20 of the latter Mr. Parkes gives what he terms "a typical section of very much of the work in its present state," adding "Parts of it are necessarily hypothetical, but there is enough which is matter of actual observation to justify the assumption of the remainder. For a length of at least two-thirds of the damaged parts blocks 1 and 3 have been traced by the diggers and found with slight exceptions to be undisturbed;" and further on: "There is however sufficient evidence, direct and indirect, to negative the very improbable supposition of these (the inner lower blocks Nos. 2 and 4) having been undermined and thus caused the fall of the inner wall towards the Harbour."

4. As an exception to this generalization, which affects 1,200 feet of the north and 900 feet of the south pier, Mr. Parkes goes on to show that 400 feet of the first and 500 feet of the second which have been differently affected, and in these that probably both the lower blocks Nos. 1 and 2 have been slightly displaced, No. 1 being drawn away a little seawards and tilted.

5. On the positions of the lower blocks as thus determined Mr. Parkes has based his reconstruction scheme on the monolithic system. It is unnecessary at this moment to make any very detailed analysis of the sections as now submitted by Mr. Beardmore, the more so as the further sections promised later in the year will doubtless give the best continuous record which it is possible to obtain, but one can hardly examine those now furnished without being struck by the very much greater displacement of all the blocks, along both the seaward arms of the work, than one would be led to expect from Mr. Parkes's report.

6. It is true there was later in the year rather a heavy sea, but Mr. Beardmore has distinctly reported that this occasioned no further displacement of the blocks.

7. Along the south pier, with the exception of the sections taken severally at 3,800', 3,775', 3,750' and 3,725', the disturbance of all the blocks seems very great. Everywhere the piers seem to have shifted towards the Harbour and sunk with a tilt in that direction, showing that where the two lower blocks Nos. 1 and 2 are not actually displaced they have no longer a horizontal bed as indicated by Mr. Parkes's section.

8. Along the north pier the evidence of disturbance is even greater. The sections taken at 3850', 3775', and 3350' alone seem to hold out a hope that the lower blocks are sufficiently unmoved to build upon again.

9. Everywhere there has been great settlement of the work on a whole, and dragging seaward of the rubble base, coupled with other evidence confirmatory of Mr. Molesworth's opinion that the random block system of reconstruction seems the only safe one now to resort to.

10. However this may be, there would seem to be sufficient evidence in the sections now submitted to warrant delay in adopting Mr. Parkes's monolithic system of reconstruction till they have come under the notice of the home experts, who no doubt will be consulted by the Secretary of State.

(Signed) R. H. SANKEY, Colonel, R.E.,  
Chief Engineer, P.W.D.

26th July 1882.

No. 146-C.

ORDER—dated 28th July 1882, No. 1911 W., Public Works.

Ordered that the following telegram be despatched to the Secretary of State:—

"Please suspend decision Madras Harbour reconstruction pending receipt Beardmore's sections now being despatched showing displacement lower blocks greater than indicated in Parkes's report."

2. Copy of the above, with copies of the sections, will also be forwarded to the Government of India.

(Here enter No. 1912 W., dated 28th July 1882.)

(True Extract.)

(Signed) R. H. SANKEY, Colonel, R.E.,  
Secretary to Govt., P.W.D.

To the Superintendent, Madras Harbour Works,  
" Marine Department.

BUILDINGS AND ROADS.  
CIVIL WORKS.

Govt. of (1832) Madras  
PUBLIC WORKS.

Dated July, 28th.

Recd.

Encl.

G.O., 28th July 1882, No. 1912 W.

JULY.

Nos. 146-A-146-D.

Madras Harbour Works.

FORWARDING copy of telegram to Secretary of State requesting to suspend decision regarding reconstruction of the —, and copies of Mr. Beardmore's sections showing displacement of lower blocks greater than that indicated in Mr. Parkes's report.

1912  
34

28TH JULY 1882, No. 32 W., PUBLIC WORKS.  
1913

PUBLIC WORKS DEPARTMENT.

LETTER—to

THE MOST HONORABLE THE SECRETARY OF STATE FOR INDIA.

MY LORD MARQUIS,

Adverting to our telegram of the 27th July embodied in the accompanying copy of Proceedings, we have now the honor to forward, for your Lordship's information, copy of Mr. Beardmore's letter, No. 22 W., dated 15th July 1882, and of the sections referred to therein, being—

3 sets of sections of North Pier;  
2 " " South Pier; and  
1 Index Map.

We have the honor to be,

My Lord Marquis,

Your Lordship's most obedient, humble servants,

(Signed) M. E. GRANT DUFF.  
( " ) ~~FRED. ROBERTS.~~  
( " ) DAVID F. CARMICHAEL.  
( " ) H. E. SULLIVAN.

OOTACAMUND,  
28th July 1882.

Exd. A. F. Goodall.

GOVT. OF MADRAS.

PUBLIC WORKS DEPARTMENT.

LETTER to the Most Honorable  
the Secretary of State for  
India.

No. <sup>32</sup>/<sub>1913</sub> W., dated 28th July 1882.

Madras Harbour Works.

FORWARDING Mr. Beardmore's sections of the  
Madras Harbour showing displacement of lower  
blocks greater than that indicated in Mr. Parkes's  
report.

No. 221r

FROM

THE ACTING SUPERINTENDENT,  
MADRAS HARBOUR WORKS,

TO

Colonel A. H. Sankar, C. B. R. E.,  
The Secretary to Government P.W. Dept  
Buildings & Roads  
MADRAS, 15<sup>th</sup> July 1882.

Sir,  
Referring to the note to Paragraph 6  
of Mr. Parkes report on the Madras  
Harbour of 9<sup>th</sup> March 1882, I have  
the honour to forward you a plan  
and five sheets of sections of the  
injured portions of the two Piers.  
The five sheets of sections consist  
of one sheet of each of the Curves,  
one each of the outer straight por-  
tions of the Piers, and one of the  
outer part of the Inner straight  
portion of the North Pier showing  
the scour on the North side in the  
Rubble Base which has now been  
filled up. Much difficulty was

3 sets of section  
of North and  
2 of South  
Piers -  
also under  
plan

experienced in making this survey  
the greater part of it having been made  
from Batamarana; and the fair  
weather period of the last North East  
Monsoon was unusually short so I  
should have completed a larger number  
of sections. The intention is, to take  
a section at every twenty five feet  
in the length of the Pier, but there  
will hardly be a chance of taking  
more until next September or  
October. If the weather should not  
be fair enough then, there will be  
no further chance until February  
next.

I have the honor to be,

Sir,

Your most obedient servant,

Walter H. Beardmore C.E.

Acting Superintendent

M. R. Work

A. 20 470 W. 3-3-82.  
 " " 1008 W. 24-4-"  
 " " 1694 W. 6-7-"

W. 20 4753

# Buildings & Roads

From

The Ag Superintendent  
 Madras Harbour Works

No 22 W

Dated 15<sup>th</sup> July 1882

Recd 17<sup>th</sup> July/82

No. of Enclosures 6

## Damage to Harbour

Forwards Plan and Sec-  
 tions of - referred to in Mr.  
 Parker report of 9th March  
 1882.

Oct 497

only 18/7 Refd 31.7.82

Wm H. Sullivan Per  
 R. H. the Governor

1912

Read following Note by the Chief Engineer

The sections of the ruined  
 piers of the Madras Harbour  
 were measured by the Officer  
 Supd. Mr. Beaudouin have  
 apparently been very carefully  
 taken at 50 feet apart  
 along the work, and are  
 hence the following lengths  
 of each, commencing from  
 the outer ends at the  
 Harbour mouth.

|            | From                    | To   | Total<br>length<br>Sections |
|------------|-------------------------|------|-----------------------------|
| North pier | <del>1100</del><br>3850 | 1500 | 2350'                       |
| South do   | 3950                    | 2400 | 1550                        |
| Total      | Length sections         |      | <u>3900'</u>                |

It will thus be seen that  
 although about 1000 feet  
 of the shore end of the  
 South pier (i.e. between 2400'  
 and 1400') remain to be  
 sectioned, and double the  
 present number to be taken  
 over all, as it is proposed  
 to have sections at every  
 25 ft., it may be brought  
 that these were submitted

will admit of some  
useful conclusions being  
drawn

With reference to the documents  
have only had before it  
Mr. Dunscombe's original  
report - made immediately  
after the cyclone of the  
12 Nov. 1881, and Mr.

Parkes more detailed one  
dated 9. January 1882, as  
indicating the position of the blocks  
in para 20 of the latter

Mr. Parkes gives what he  
terms "a typical section"

"of very much of the work  
"in its present state" adding

"Parts of it are necessarily  
"hypothetical, but these

"is enough which is

"nature of actual observation

"to justify the presumption

"of the remainder - For

"a length of at least two

"trunks of the damaged,

"parts blocks 1 and 3

"have been traced by the

"divers and found with

"slight exceptions to be

"undisturbed" and

positions are "There is known

"sufficient evidence direct

"and indirect to negative

"the very improbable

103

(regarding lower blocks 1, 2 and 3)  
"Supposition of these  
"having been undermined  
"and thus caused the  
"fall of the inner wall  
"towards the harbour"

As an exception to the  
Generalization, which affects  
1200 ft. of the water and  
900 ft. of the South pier,  
Mr. Parkes goes on to show  
that 400 ft. of the first  
and 500 ft. of the second  
which have been differently  
affected and in these  
shows that probably both  
the lower blocks Nos 1 and 2  
have been slightly displaced,  
No 1 being drawn away  
a little seawards and  
tilted - 1912

On the positions of the  
lower blocks as thus  
determined Mr. Parkes  
has based his reconstruction  
Scheme on the monolithic system  
It is unnecessary at the  
moment to make any  
or detailed analysis of  
the Section as now submitted  
by Mr. Beardmore, the  
more so as the further  
Sections promised later  
if the <sup>the</sup> was  
Sufficient will doubtless  
give the best confirmation

record which it is possible  
to obtain, but one can  
hardly ~~conclude~~<sup>infer</sup> those  
now furnished without  
being struck by the very  
much greater displacement  
of all the blocks, along  
both the seaward arms  
of the work, than one would  
be led to expect from Mr.  
Parkes's report.

It is true there was later  
in the year rather a heavy  
sea but Mr. Deardmore  
has distinctly reported that  
this occasioned no further  
displacement of the blocks.

Along the South pier with  
the exception of the sections  
taken seaward at 3800',  
3775' 3750 + 3725' the dis-  
turbance of all the blocks  
seems very great - Everywhere  
the piers seem to have shifted  
towards the harbour and  
sunk with a tilt in that  
direction, showing that  
where the two lower blocks  
Nos. 1 and 2 are not actually  
displaced they have no  
longer a horizontal bed  
as indicated in Mr. Parkes's  
Section.

Along the North pier the

176 Evidence of disturbance  
is even greater - The  
Sections taken at 3850',  
3775', and 3350', alone  
seem to hold out a hope  
that the lower blocks  
are sufficiently unmoved  
to build upon again.

Everywhere there has  
been great settlement of  
the work as a whole, and  
dragging seaward of the  
mubble base, coupled  
with other evidence con-  
firmatory of Mr. Deardmore's  
opinion that the random  
block system of recon-  
struction seems the only  
safe one now to resort  
to -

1912 W  
14 10  
However this may be,  
there would seem to be  
sufficient evidence in  
the Sections now submitted  
to warrant delay in  
adopting Mr. Parkes's  
unlithic system of  
reconstruction till they  
have come under the  
notice of the Home Expts.  
who no doubt will be  
consulted by the Secy of State.

It is therefore proposed  
that the following telegram  
be now despatched  
to the S of S. etc.

"Please suspend  
"Decision Madras Harbour  
"Reconstruction pending  
"Receipt of Sections and  
"dispatched showing  
"displacement lower  
"blocks greater than  
"indicated in  
"Parker's report"  
Copy also to be forwarded  
to S of S.

Early order solicited

26.7.82

The above was  
approved in Council  
of the date

No 1911 W

175 B + H

PUBLIC WORKS DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT

Under date the 28<sup>th</sup> July/82

Read the following:-

1912

From Super. Madras Harbour  
Work 3/4 No. 22 to S of S. 11<sup>th</sup> July/82

Note by the Chief Eng. (a/26<sup>th</sup> July 1897)

Ordered that the fol-  
-lowing telegram be despatched  
to the Secretary of State:-

"Please suspend decision  
"Madras Harbour reconstruction  
"pending receipt of Sections and  
"time now being despatched  
"showing displacement lower  
"blocks greater than indica-  
"ted in Parker's Report."

2 Copy of the above  
with copies of the sections  
will also be forwarded to  
the Government of India.

M.C. No 1912 W of 28<sup>th</sup> July/82

Despatch  
4/8

Forwarded to

Superintendent, Madras Harbour Works of the Government of India  
Marine Department.

Recd  
4/8 No. 2

No. 32  
1913 W of 28<sup>th</sup> July 1882

The Most Honble the  
Marquis of Hartington  
Secretary of State for India.

My Lord Marquis,

Adverting  
to our Telegram of the 27<sup>th</sup>  
July enclosed in the  
accompanying copy of Pro-  
ceedings we have now the  
honor to forward for  
your Lordship's information  
copy of Mr. Beaumont's letter  
No 22 to of 15<sup>th</sup> July 1882 and  
of the sections referred to  
therein, being

3 sets of sections of North Pier  
2 do. " South Pier,  
and  
1 Index Map.

R.S.  
Sd/- R.S.S.

Desp. to Secy. of State  
in Mps. with 8 enclos.  
28/7/82

4435  
4753  
GOL of (1882) Indian  
PUBLIC WORKS.

MA works

Copy of telegram  
to Govt Dept. to suspend  
decision regarding the con-  
struction of the  
4 copies for Ream  
section showing the  
displacement of lower  
blocks greater than that  
indicated in Mr Parker  
Report.

Date

Ref

28 July 1912  
1912  
1913  
Sec 146A to 146B

Matras Harbour.

Telegram to Govt  
requesting to suspend  
decision regarding the  
construction of the

Ream section of  
Mr Ream one section  
showing displacement  
of lower blocks greater  
than that indicated in Mr  
Parker Report.

Forwarding Mr Ream  
section of the Matras  
showing displacement  
of lower blocks greater  
than that indicated by  
in Mr Parker Report.

20/10