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TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

P. W. D. DEPARTMENT

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B.S. 28

1340

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

28th May 1881, No. 1,340 W.

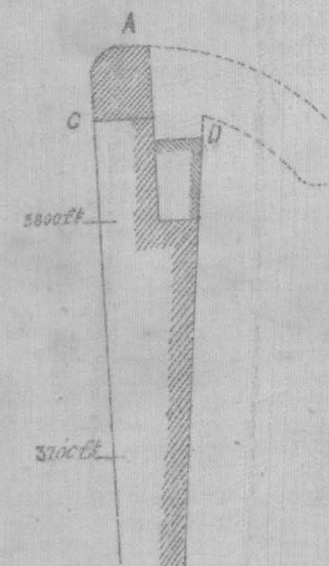
Buildings and Roads.
Civil Works.

Read the following paper:—

No. 60. From F. N. THOROWGOOD, Esq., M. Inst. C. E., Superintendent, Madras Harbour Works, to the Secretary to Government, Public Works Department, Buildings and Roads, dated Madras, 5th May 1881, No. 10 W.

I HAVE the honor to submit the following report of the progress on these works during the past month of April, and I regret that it cannot be viewed as being altogether satisfactory.

2. NORTH PIER SUPERSTRUCTURE.—In my report for the month of March (G.O., No. 934 W., of 7th April 1881) I alluded to the approaching completion of the north pier head which I fully believed we should accomplish (with the exception of the return wall or horn) in April, but which has given a great deal of trouble and caused



much delay. On 5th April the corner blocks A had been, with much difficulty, satisfactorily set in position bringing the north pier to an end in a vertical face, exactly in accordance with Mr. Parkes' design. On the 8th I was annoyed, but not entirely surprised, to find that the sloped or battering courses at the back of the vertical quoin had pushed the latter over considerably. On the following morning there was rather a heavy swell from the south, and this caused the whole pile of blocks in the vertical quoin to vibrate seriously. I then determined that, notwithstanding great delay ensuing, we must take up all the vertical work, together with two rows of the battering work and alter the design of the extreme end so as not to terminate in a vertical face. At the same time I telegraphed to Mr. Parkes informing him of what I was obliged to do.

3. Nearly the whole of the remainder of the month of April has been occupied in pulling up this piece of work, but I am pleased to report that now this is done and the alterations in the blocks are carried out, so that in June we shall be ready to rebuild the end of the pier in a less elegant but infinitely more substantial manner. The actual progress on the north pier during April has been confined to bringing the end up to an even termination as shown by the line C D on the marginal sketch, this has involved the setting of 141 concrete blocks. The Titan crane is now withdrawn for the stormy season.

4. NORTH PIER RUBBLE BASE.—A small quantity of rubble base was required for levelling up the beds of some of the rows, the amount used in April being 252 tons. This brings the total quantity used in the north pier base to 486,022 tons as compared with 489,910 tons given in Mr. Parkes' estimate.

5. CONCRETE BLOCK-MAKING.—The difficulty we met with at the north pier end has rendered the building of some special blocks necessary; I therefore am obliged to

correct my statement in paragraph 4 of the report for March, that all the blocks for the north pier are completed. During April 245 concrete blocks were made by machinery, nearly all of them being for the south pier head. The staff employed in making blocks is now reduced to a minimum.

6. QUARRIES.—From the laterite quarry at Ambathur 10,851 tons of material were received in April, and the quarry is now practically closed, although for the work on the beach a considerable quantity will still be required which can be obtained from those parts of the quarry that have ceased to yield suitable stone for the rubble bases. From Pallavaram the outturn in April was 15,418 tons, nearly 50 per cent. above what was quarried in March. The intense heat at these quarries at mid-day interferes seriously with the quarrying operations.

7. SOUTH PIER SUPERSTRUCTURE.—The progress at the south pier has been good and the commencement of the pier head is now reached. During April 256 blocks were satisfactorily set and the work advanced by a length of 150 feet, bringing the total length up to 3,785 feet from the commencement. As at the north pier the south Titan is now withdrawn back from the pier end and stands upon blocks which have been already severely tested by the storms of last November. This position of safety will be maintained throughout the present month of May.

8. SOUTH PIER RUBBLE BASE.—The base of the south pier is now approaching completion, and little remains to be done except for the foundation of the return wall or horn. In April 23,014 tons of stone were deposited, of which the steamer *Salisbury* conveyed 8,168 tons from the north pier. The remaining portion of the south pier base will be formed of Pallavaram granite.

9. EXPENDITURE.—The expenditure during April has been approximately Rs. 1,04,917, and the total outlay to the end of April Rs. 52,98,014.

10. STORES RECEIVED ON WORKS.—The only stores received from England in April consisted in flax spun yarn brought by the *El Dorado* and much needed.

11. PLANS AND SECTIONS.—The usual plan and two sections accompany this report. The longitudinal section of the north pier shows the vertical termination of the work on the evening of 2nd April. It will be observed in the south pier section that the rubble base is nearly completed.

12. PROTECTIVE WORKS TO NORTH BEACH.—The line of coast has been preserved very well for the last two months without any extension of the revetment or other protective works. The coast is constantly watched and the revetment will be extended as required.

13. STRAND RECLAMATION PROJECT.—The work of improving the beach is being carried out as rapidly as circumstances will permit. There have been 28,640 cubic yards of sand excavated and formed. Three drains have been extended under the newly formed works, and three chains of railway line laid in for tipping the first jetty. I hope to make better progress during May when the pressure of work on the harbour staff is diminished.

No. 61. ORDER THEREON, 28th May 1881, No. 1,340 W.

ORDERED to be recorded with the observation that Mr. Parkes be requested to report his opinion as to the stability of the design as now modified for the pier ends; also whether a proper system of bonding and the use of joggles for all the work at the end should not have been originally adopted.

(True Extract.)

(Signed)

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

To the Superintendent of the Madras Harbour Works.
" Engineer-in-Chief do. do.
" Marine Department.

Exd. E. C. Shunker.

Spare Copies

1340
2

BUILDINGS AND ROADS.
CIVIL WORKS.

Gobt. of 1881 Madras.
PUBLIC WORKS.

To

THE SUPERINTENDENT, MADRAS
HARBOUR WORKS.

&c., &c., &c.

Dated May, 28th.

Issued

Recd.

Encl.

G. O., 28th May 1881, No. 1,340 W.

MAY.

Nos. 60-61.

Madras Harbour Works.—Progress report
for April 1881 recorded with certain ob-
servations.

No. 1011

From

THE SUPERINTENDENT,

MADRAS HARBOUR WORKS,

To

Colonel A. H. Linkey, C. B. & Co.

Secretary to Government, M. Dept.

Buildings & Roads,

Fort Saint George,

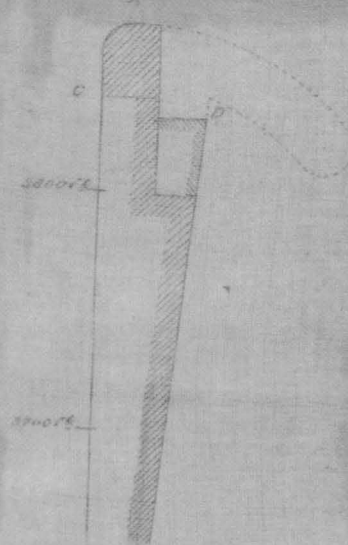
MADRAS, 5th May 1881.

Sir,

I have the honor to submit the follow-
ing report of the progress on these works during
the past month of April, and I regret that
it cannot be viewed as being altogether satis-
factory.

North Pier
Superstructure

2. In my report for the month of March
(G.O. No. 10 of April 7th 1881) I alluded to
the approaching completion of the North
Pier Head which I fully believed we should
accomplish (with the exception of the return
wall or basin) in April, but which has given



a great deal of trouble and
caused much delay. On
April 5th the corner blocks
A had been, with much diffi-
culty, satisfactorily set in
position bringing the North
Pier to a point in a vertical
face

face, exactly in accordance with Mr. Parker's design. On the 8th I was annoyed, but not entirely surprised, to find that the sloped or battering courses at the back of the vertical quoin had pushed the latter over considerably. On the following morning there was rather a heavy swell from the South, and this caused the whole pile of blocks in the vertical quoin to vibrate seriously. I then determined that notwithstanding great delay ensuing, we must take up all the vertical work, together with two rows of the battering work and alter the design of the extreme end so as not to terminate in a vertical face. - At the same time I telegraphed to Mr. Parker informing him of what I was obliged to do. -

3. Nearly the whole of the remainder of the month of April has been occupied in pulling up this piece of work, but I am pleased to report that now this is done and the alterations in the blocks are carried out, so that in June we shall be ready to rebuild the end of the Pier in a less elegant but infinitely more substantial manner. The actual progress on the North Pier during April has been confined to bringing the end

up

North Pier Rubble Base

1340
up to an even termination as shown by the line C D on the marginal sketch, this has involved the setting of 141 concrete blocks. The Titan Crane is now withdrawn for the stormy season. -

4. A small quantity of rubble base was required for levelling up the beds of some of the piers, the amount used in April being 252 tons. This brings the total quantity used in the North Pier base to 1186022 tons as compared with 1189910 tons given in Mr. Parker's estimate. -

Concrete Block- making

5. The difficulty we met with at the North Pier and has rendered the building of some special blocks necessary. I therefore am obliged to correct my statement in para. 4 of the report for March that all the blocks for the North Pier are completed. During April 21,6 concrete blocks were made by machinery, nearly all of them being for the South Pier Head. The staff employed in making blocks is now reduced to a minimum. -

Quarries

6. From the laterite quarry at Shribathur 10857 tons of material were received in April, and the quarry is now practically closed, although for the work on the beach a considerable quantity will still be required which can be obtained from those parts of the

quarries

quarry that have ceased to yield suitable stone for the rubble bases. From Pallavaram the output in April was 15,188 tons, nearly 50 per cent above what was quarried in March. The intense heat at these quarries at midday interferes seriously with the quarrying operations.

7. The progress at the South Pier has been good and the commencement of the Pier Head is now reached. During April 256 blocks were satisfactorily set and the work advanced by a length of 150 feet, bringing the total length up to 3785 feet from the commencement. As at the North Pier, the South Titan is now withdrawn back from the Pier end, and stands upon blocks which have been already severely tested by the storms of last November. This position of safety will be maintained throughout the present month of May.

8. The base of the South Pier is now approaching completion, and little remains to be done except for the foundation of the return wall or horn. In April 23,011 tons of stone were deposited, of which the steamer 'Salisbury' conveyed 8,168 tons from the North Pier. The remaining portion of the South Pier base will be formed of Pallavaram granite.

9. The expenditure during April has been approximately

Stores received on works

Plans and Sections

Protective works to North Beach

Harbour Reclamation Project.

1340/6
approximately Rs 104,917, and the total outlay to the end of April Rs 52,98,014.

10. The only stores received from England in April consisted in Flax spun yarn brought by the 'El Dorado' and much needed.

11. The usual plan and two sections accompany this report. The longitudinal section of the North Pier shows the vertical termination of the work on the evening of April 2nd. It will be observed in the South Pier section that the rubble base is nearly completed.

12. The line of coast has been preserved very well for the last two months without any extension of the revetment or other protective works. The coast is constantly watched and the revetment will be extended as required.

13. The work of improving the beach is being carried out as rapidly as circumstances will permit. There have been 28,610 cubic yards of sand excavated and formed. Three drains have been extended under the newly formed works, and 3 chains of railway line laid in for tipping the first jetty. I hope

to make better progress during May when
the pressure of work on the Harbour Staff
is diminished.

I have the honor to be,

Sir,

Your most obedient servant

J. H. Morrongiolo, Esq. M. Inst. C.E.
Superintendent
Madras Harbour Works

1240
6

Proc. No. 2769

Buildings & Roads

From
The Superintendent
Madras Harbour Works

1340
D

A
No. 1340 W. 28/5/81

Ordered to be recorded
with the observations
that Mr. Parker be
requested to report
his opinion as to the
suitability of the design
as now modified in
the pier ends, also whether
with a proper system of
bolting & the use of
ropes in all the work
at the end should not
have been originally
adopted.

12/10/11
Dated 5th May 1881
Desp'd 6th
Recd. 7 May

No. of Accompaniments 3
with Mr
Parker

Att

5/5/81

G.O. No. 934 W. 7.4.81.

Supt. Mr. H.W. Parker
Eng. in Chief Mr. H.W. Parker
Marine Dept. & Reside
C. 7.5.81 C. 10/5 0/81 7/6/81

Progress Report
Submitted for the month of
April 1881.

Govt. of 1881

PUBLIC WORKS.

To

Dated

Issued

18/5-03

G. O., 2d May 1881, No. 1340 W

Nos. 60-61

Madras Harbour No. 10
Progress Report for April
1881, recorded with certain
observations.

43

4