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TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU
P.W DEPARTMENT

G.O. No.	2385 A-W	Press.
B.P. No.		Mis.
Dated	12. 9. 1879	197.

M.J.

Not to be folded or roughly handled

23850

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

12th September 1879, No. 2,335-A W.

Buildings and Roads.

Civil Works.

Read the following paper:—

No. 40. 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, 2nd September 1879, No. 30 W.

I HAVE the honor to submit the following report of the progress on these works during the past month of August.

2. *North Pier, Superstructure.*—The weather has been very favorable for work, and the rate of progress during August has been nearly as rapid as it was in July. It would have been quite as rapid if the supply of cement from England during June and July had been on a larger scale; but the four last vessels that arrived have brought altogether only 239 tons of cement, which is not sufficient to make as many blocks as can be set in one week at both piers. During August 276 blocks were set in the north pier, advancing the work by a length of $163\frac{1}{2}$ lineal feet, and bringing the end of the pier on the 31st to $2,076\frac{1}{2}$ feet from the point B, or commencement of block-work.

3. On August 18th the change in the slope or batter of the work was effected by setting a somewhat complicated row of blocks, the backs of which were made to the former batter of 3 inches to 1 foot, and the faces to the new batter of $1\frac{1}{2}$ inches to 1 foot. The result has been as satisfactory as I had hoped it would be, and the top of each subsequent row of blocks is now brought up truly level. The tendency to run out at the foot which has always caused so much trouble and difficulty (mentioned in my report No. 20 W, July 3rd, paragraph 5,) is now reduced to a minimum, and the change of section may be considered as an improvement in every way.

4. *North Pier, Rubble Base.*—The deposit of rubble base has been carried on by the steamers *Hobart* and *Salisbury* and by cargo boats as usual. The greater part of the work of tipping is now on the curved portion of the north pier base, and stone is being deposited as far out as 2,700 from point B, or 400 feet from the tangent point or springing of the curve. At this distance out nearly 600 tons of stone are required to form enough base for the foundation of one row of blocks. During the past month 21,885 tons of laterite were deposited, of which the *Hobart* carried 10,673 tons, the *Salisbury* 5,687 tons, and the remainder was disposed of by cargo boats and from the Titan crane. A section (from actual measurement) is shown on a tracing accompanying this report to a scale of 20 feet to an inch. The section was taken in the usual course of surveying on August 19th at 2,000 feet from point B, and may be considered as a fair representation of the base out to the commencement of the curve.

5. *Blockmaking.*—The great want of cement on the works has obliged me to keep the blockmaking machinery going at an unremunerative rate, as we have never been able to turn out more than twelve blocks per day, whereas with a small additional

expenditure of coal and oil, &c., eighteen blocks can be made daily. There were only 216 blocks made in August and this number required all the available cement, but as there were 492 blocks set in the two piers, it is evident that shortly there must be stoppage of work at one pier for a time.

6. I had reckoned on receiving 400 tons of cement from England on the 10th or 12th of September in the ship *Kingdom of Saxony*, but I regret to find that the date of sailing, given as June 2nd by the India Office in the Packing Account, is erroneous, the vessel not having sailed till July 6th. At the present date there are 1,400 tons of cement due on the telegraphic indent of January 21st, 1879.

7. *Quarries.*—The quarries have been working as well as usual during August, and the quality of stone satisfactory. From Umbathoor 25,763 tons of laterite were received and from the South Indian Railway quarries 16,352 tons of granitic stone, making a total supplied to the works in the month of 42,315, the largest quantity ever achieved in one month, giving a daily average of 1,628 tons. At Pallaveram by blasting into the rock for a slight depth a most perfect sample of stone is reached, very like the whinstone of Queensferry in Scotland. This is used for blockmaking.

8. *South Pier, Superstructure.*—The progress at the south pier has not been quite equal to that at the north, owing to rather heavy excavation being necessary in the rubble base. This, as I have had occasion to mention before, is unavoidable occasionally. There were 216 blocks set during the month, advancing the work by a length of 128 lineal feet, and making the total length from the commencement of block work 1,553½ feet. The change in the batter of the blocks has not yet been carried out at the south pier, but I hope to accomplish it during the current month.

9. *South Pier, Rubble Base.*—The rubble base at the south pier has been chiefly tipped by cargo boats during August, as the *Hobart* and *Salisbury* were working more at the north pier curve. During the month 14,840 tons were deposited, of which the *Hobart* brought 1,387 and the *Salisbury* 1,618 tons from the north pier. There is now base deposited for a distance of 800 feet in advance of the block work, as shown on the accompanying longitudinal section taken at the end of August, and in dotted lines on the plan.

10. *Protective Works and alteration of the Coast.*—The line of the coast, as it was at the end of August, is shown on the accompanying plan in a green dotted line, and the groyne that has last been thrown out is shown in red. There is still considerable encroachment northward from the Police thannah, but I do not think it desirable to through out groynes further north at present, nor would such a course be in agreement with what Mr. Parkes proposed in his letter to Government of February 25th, 1879. For the last groyne constructed 874 tons of laterite were used in the past month.

11. *Intercepting Sewer along Beach.*—Nothing further has been done with regard to the intercepting sewer as orders are awaited on the subject. The deficient supply of cement would have rendered it a difficult matter to carry on much work at the sewer during the past two months.

12. *Stores received on Works.*—During August the ship *Berar*, which sailed May 11th, arrived with 93 tons of cement. This is the second sailing ship that has brought cement on the indent of January last. I have already stated the inconvenience that will follow on these two ships having brought such a very small quantity in each. A slight stoppage is, I fear inevitable, but it may safely be expected that in two months' time the cement from England will come in sufficient quantities to keep the work going on rapidly till its completion.

13. The steamers *Chanda* and *Khandalla* brought 477 salwood sleepers, some from Gopaulpore and some from False Point.

14. There have also been received during the past month 338 tons of cement from General Morgan, and 300 tons of Australian coal for general purposes on the works.

15. *Plans and Sections.*—Accompanying this report I have the honor to submit one general plan, two longitudinal sections, and one cross section of the piers showing

the state of the rubble base at the end of August. A lithographed plan on a scale of 200 feet to 1 inch has been prepared as directed in G.O., No. 1,953 W. of July 24th, the proof of which reached me to-day.

16. *Assistant Superintendent.*—Mr. Beardmore, Assistant Superintendent, whose departure on leave I reported in paragraph 22 of the report for July, returned to work on the 21st August, having been away exactly five weeks, the period for which he asked leave. As the Examiner of Public Works Accounts appears to be unable to allow Mr. Beardmore's salary for those five weeks, I would respectfully ask that some intimation be given that His Grace the Governor in Council approves of the leave.

17. *Expenditure.*—The expenditure on the works up to the end of August has been approximately Rupees 30,52,861.

No. 41. ORDER THEREON, 12th September 1879, No. 2,335-A W.

RECORDED in continuation of G.O., No. 1,953 W, dated 24th July 1879.

2. The Right Honorable the Secretary of State will be requested by telegraph to arrange for the more expeditious despatch of the cement to allow of the uninterrupted prosecution of work at both the piers.

3. The question in regard to Mr. Beardmore's leave will be disposed of in separate Proceedings.

(True Extract.)

Major, R.E.,
Ag. Under Secy. to Govt., P.W.D.

To the Superintendent, Madras Harbour Works.
" Secretary, Harbour Committee.
To General Morgan.

Exd. S. T. Austin.
Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

Gobt. of [1879] Madras.
PUBLIC WORKS

To
THE SUPERINTENDENT, MADRAS
HARBOUR WORKS.
cc, cc, cc

Dated September 12th.

Issued

Read

G. O., 12th September 1879, No. 2,335-A W.

SEPTEMBER.
Nos. 40-41.

Madrass Harbour Works.—Progress report
for August 1879, recorded.

No. 3014

3
2835A P1

From

THE SUPERINTENDENT,
MADRAS HARBOUR WORKS.

To

Colonel R. H. Sankey, C. B. R. E.
Secretary to Government, P. W. Department,
Buildings & Roads,
Fort St. George,
MADRAS, 2^d September 1879.

Sir,

I have the honor to submit the following
report of the progress on these works during
the past month of August.

North Pier.
Superstructure.

2. The weather has been very favourable
for work and the rate of progress during August
has been nearly as rapid as it was in July.
It would have been quite as rapid if the supply
of cement from England during June and July
had been on a larger scale, but the four last
vessels that arrived have brought altogether only
239 tons of cement which is not sufficient to
make as many blocks as can be set in one
week at both piers. During August 276 blocks
were set in the North Pier advancing the work
by a length of $16\frac{3}{4}$ lineal feet and bringing
the end of the pier on the 31st to $207\frac{1}{2}$ feet
from the point B or commencement of
blockwork.

On

3. On August 18th the change in the slope or batter of the work was effected by setting a somewhat complicated row of blocks, the backs of which were made to the former batter of 3 inches to 1 foot and the faces to the new batter of 1 1/2 inches to 1 foot. The result has been as satisfactory as I had hoped it would be, and the top of each subsequent row of blocks is now brought up truly level. The tendency to run out at the foot which has always caused so much trouble and difficulty (mentioned in my report N. 20 W. July 3rd para. 5) is now reduced to a minimum, and the change of section may be considered as an improvement in every way.

4. The deposit of rubble base has been carried on by the steamers "Hobart" & "Salisbury" and by cargo boats as usual. The greater part of the work of tipping is now on the curved portion of the North pier base, and stone is being deposited as far out as 2700 from point B, or 400 feet from the tangent point or springing of the curve. At this distance out nearly 600 tons of stone are required to form enough base for the foundation of one row of blocks. During the

past

North C
Rubble &

2335 A / 2
past month 21885 tons of latvite were deposited, of which the "Hobart" carried 10678 tons, the "Salisbury" 5604 tons, and the remainder was disposed of by cargo boats and from the Titan crane. A section (from actual measurement) is shown on a tracing accompanying this report to a scale of 20 feet to an inch. The section was taken in the usual course of surveying on August 19th at 2000 feet from point B, and may be considered as a fair representation of the base out to the commencement of the curve.

Blockmaking. 5. The great want of cement on the works has obliged me to keep the blockmaking machinery going at an unremunerative rate, as we have never been able to turn out more than 12 blocks per day, whereas with a small additional expenditure of coal and oil 40 or 48 blocks can be made daily. There were only 216 blocks made in August and this number required all the available cement, but as there were 492 blocks set in the two piers, it is evident that shortly there must be stoppage of work at one pier for a time.

6. I had reckoned on receiving 400 tons of cement from England on the 10th or 12th of September

September, in the ship "Kingdom of Saxony," but I regret to find that the date of sailing given as June 27 by the India Office in the Packing Account is erroneous, the vessel not having sailed till July 6th. - At the present date there are 11400 tons of cement due on the telegraphic indent of January 28th 1879.

7. The quarries have been working as well as usual during August, and the quality of stone satisfactory. From Umbathoor 25763 tons of laterite were received and from the South Indian Railway quarries 16352 tons of granitic stone, making a total supplied to the works in the month of 42315 the largest quantity ever achieved in one month, giving a daily average of 1620 tons. At Pallavaram by blasting into the rock for a slight depth a most perfect sample of stone is reached, very like the whinstone of Queensferry in Scotland. This is used for blockmaking.

8. The progress at the South Pier has not been quite equal to that at the North, owing to rather heavy excavation being necessary in the rubble base. - This as I have had occasion to mention before, is unavoidable occasionally. There were 216 blocks set during

Quarries.

South Pier Superstructure

South Pier Rubble Base

Protective works and alteration of the Coast.

during the month advancing the work by a length of 128 lineal feet and making the total length from the commencement of blockwork 1553 3/4 feet. The change in the batter of the blocks has not yet been carried out at the South Pier, but I hope to accomplish it during the current month.

9. The rubble base at the South Pier has been chiefly tipped by cargo boats during August, as the "Hobart" and "Salisbury" were working more at the North Pier curve. - During the month 11840 tons were deposited, of which the "Hobart" brought 1387 and the "Salisbury" 1610 tons from the North Pier. There is now base deposited for a distance of 800 feet in advance of the blockwork as shown on the accompanying longitudinal section taken at the end of August, and in dotted lines on the plan.

10. The line of the coast as it was at the end of August, is shown on the accompanying plan in a green dotted line, and the groynes that has last been thrown out is shown in red. There is still considerable encroachment northward from the Police Thannale, but I do not think it desirable to

to throw out groynes further North at present nor would such a course be in agreement with what Mr. Parkes proposed in his letter to Government of February 25th 1879. For the last groyne constructed 874 tons of laterite were used in the past month.

11. Nothing further has been done with regard to the intercepting sewer as orders are awaited on the subject. The deficient supply of cement would have rendered it a difficult matter to carry on much work at the sewer during the past two months.

12. During August the ship "Berar" which sailed May 11th arrived with 93 tons of cement. This is the second sailing ship that has brought cement on the Indent of January last. I have already stated the inconvenience that will follow on these two ships having brought such a very small quantity in each. A slight stoppage is I fear inevitable, but it may safely be expected that in two months time the cement from England will come in sufficient quantities to keep the work going on rapidly till its completion.

13. The Steamers "Chanda" and "Khandalla" brought

Intercepting
Sewer along
Beach

Stores received
on works.

brought 477 salwood sleepers, some from Gopand-pore and some from False point.

14. There have also been received during the past month 338 tons of cement from General Morgan, and 300 tons of Australian coal for general purposes on the works.

Plans & Sections. 15. Accompanying this report I have the honor to submit one general plan, two longitudinal sections and one cross section of the piers shewing the state of the rubble base at the end of August. A lithographed plan on a scale of 200 feet to 1 inch has been prepared as directed in G.O. No. 1953 of July 24th, the proof of which reached me today.

Assistant
Superintendent. 16. Mr. Beardmore, Assistant Superintendent whose departure on leave I reported in para. 22 of the report for July, returned to work on the 21st August, having been away exactly five weeks the period for which he asked leave. As the Examiner of P. W. Accounts appears to be unable to allow Mr. Beardmore's salary for those five weeks, I would respectfully ask that some intimation be given that His Grace the Governor in Council approves of the leave.

Expenditure 17. The expenditure on the works up to the

the end of August has been approximately
Rs 3052.861. —

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

J. N. Flarrowood. M. Inst. C.E.
Superintendent
Madras Harbour Works

P.W.D.

30270

Buildings & Roads

From
The Superintendent
Madras Harbour Works

G.O. 12th Sept 1879 No 2335 H

No 30 W
Dated 2nd September 1879

No. of Enclosures 3

X Determined at 500

Progress

Submits report of - during
August 1879 of the Harbour.

40

Recd 10-9-79. Del 12-9-79.
Cir 6-9-79. Del 9-9-79
To Ctg 1-9-

2335 H
P 5
L.H. Dept
No 2335 A. W.

Pro of the Madras Government.

Under date the 12th Sept 1879

Read the following-

From the Superintendent (H.C. No 30 W d/2nd Sept 1879.)
Madras Harbour Works

Recorded in con-
tinuation of G.O. No 1953 H
dated 24th July 1879.

2 The Right Honorable
the Secretary of State will
be requested by telegraph
to arrange for the more
expeditions despatch of the
cement to allow of the
uninterrupted prosecution
of work at both the
piers.

Answer the
Encls?

3. The question in regard
to Mr. Beardmore's
leave ^{would be decided}
in separate proceedings
in G.O. No. ^{dated}

Hon. W. H. Hildesley
His Grace the Governor

S
4.9

15.9

MM

5/11/79

12/9

12/9

Recd 10.9.79. Pld 12.9.79
Cir 6.9.79. Pld 9.9.79
to 1.10.79

Sept. A. H. Work.
Secy. Harbour Comm.
Sd. H. Work.

p 6

23358

to Mr. 51 of 12 Sept 79
The Right Honble
the Secy. of State
for India.

My Lord

On the 10th September
her, we despatched the
following telegram to
your Lordship:-

"Slow supply cement
indents interrupted pro-
gress harbours."

Tel. dpt 10/9/79

2. The Superintendent
of the Harbour Works
represents that owing to
the non-supply of Port-
land Cement, the rate
of progress of the piers
has not been so rapid
during the month of
August as in previous
months, although the weather
was most favorable
for work.

Inclosure attached.
Corrected copy must be
corrected.

Recd 10.9.79. Pld 12.9.79
H. 9.79

3. The consignments of cement by the four last vessels amounted ^{only} to 239 tons, a quantity which is not sufficient to make as many blocks as can be set in a single week in both piers.

4. Mr. Thorowgood reports that shortly there must be a temporary stoppage of work at one pier. He had reckoned on receiving ~~from the ship~~ ⁴⁰⁰ tons about the 10th September by the ship, "Kingdom of Saxony", but it appears that while the date of sailing as given by the India Office in the Packing Account was the 2^d June, the vessel did not actually sail till the 6th July.

¹⁰
2335P
On the 2^d September there were no less than 1400 tons of cement due on the telegraphic indent of the 21st January 1879.

5. We must request ^{you to stop shipping cement} that such action may be taken in the matter by your Lordship as will for the future ^{prevent} such regrettable ~~and negative~~ delay in the supply of cement required for the Harbour Works.

J.P.
9/9

Attch

9/9/79

Despatch Imp. 12/9
Share copies sent for
overland mail 27-9-79
D.M.

Ar 6388



Govt. of (1879) Madras.

PUBLIC WORKS.

To

Dated

Issued

Recd.

Encl.

G.O. 12 Sept 1879, No. 2335A W

No. 40-41

Madras Harbour Works
Progress Report for
August 1879. Accd. to

Madras Harbour Works
Requests early despatch
of cement for the works