(1) Number of pages 22

(2) Date of repair 12/7. 88

(3) Initials of the Referencer

TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

P.W. DEPARTMENT

G.O. No. ~~B.P. No.~~	591 - W	~~Press.~~ Mis.
Dated	28-2-1887	~~198~~.

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Not to be folded or roughly handled

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28TH FEBRUARY 1887, No. 591 W., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

READ—the following letter from the Honorable R. W. BARLOW, C.S., Chairman, Harbour Trust Board, Madras, to the Secretary to Government, Public Works Department, dated Madras, 19th February 1887, No. 2298 :—

I have the honor to forward, for your information, copy of letter No. 622 M., dated 8th February 1887, from the Superintendent, Madras Harbour Works, reporting upon the progress made during the month of January 1887, together with tracing of harbour, in original, which please return.

ENCLOSURE.

From F. N. THOROWGOOD, Esq., Superintendent, Madras Harbour Works, to the Chairman, Harbour Trust Board, dated Madras, 8th February 1887, No. 622 M.

I have the honor to submit the following report of the progress on these works during the past month of January 1887, with a plan showing in red the present terminations of the two breakwaters.

2. *North Pier Works.*—At the north pier the rubble base was levelled up and extended considerably, but most of the stone was used in making good places where subsidence had occurred. There were 10,544 tons of rubble used at this work.

3. On the 9th January the roads being all complete, the titan crane was run out to the end, and on the 10th and 11th turned round and brought into position for setting blocks. From the 12th to the 31st there were 94 concrete blocks set in the superstructure, advancing it by a length of 55 lineal feet, and making the total length of new work now completed 285 feet. The progress during February will be more rapid.

4. *Concrete Block-making.*—Block-making was carried on with fair regularity throughout the month of January, but was interrupted by the Native festival of Pongal. There were 198 blocks (representing nearly 5,000 tons of concrete) turned out in the month. Of this number, 161 were 30-ton blocks for the wave breakers, of which a very large number will be required in April and May to secure the newly-built work.

5. *South Pier Works.*—The rubble base at the south pier was levelled up to a small extent where subsidence had occurred, and 2,500 tons of stone were used for that purpose.

6. On January 6th the titan crane was run out to the end of the pier, and on the 7th was turned into its proper position for block setting. In paragraph 6 of my last progress report I pointed out that a large number of blocks overturned in May 1886 were heaped up in advance of the new superstructure. These had to be handled with great care, but by means of dynamite, claws and sling chains several blocks were recovered and 20 blocks of the new superstructure were successfully set, advancing the new work by a length of 13 feet. The recovered blocks are being dropped over the north pier wall to aid in forming the wave breaker. There is now a length of 185 feet of new superstructure completed.

7. *Palláraram quarries.*—Work has been carried on at the usual speed at the quarries during January, although quarrying has been slacker than it ought to be at this time of year. The temporary contractor is not wholly to blame for this, as he has felt very uncertain as to how long he is to work. The outturn, however, has been fair, but not so great as I should have wished, 16,696 tons of stone having been delivered during the month. It will be as well to note in this connection that as the Board accepted the tender of a new contractor from February 1st and ordered me to assist him in carrying out work under a specification, which I repudiated, I have been compelled to resign my post as Superintendent of the Madras Harbour Works.

8. Work is going on at this date at the quarry fairly well, but the contractor-elect is working independently of the other temporary man, and I regret to say is causing a hindrance. But this could only be expected.

9. *Stores received on Works.*—During January there arrived the S.S. *Waroonga* with steel pinions for the titan cranes, and steam pressure gauges for store; also the S.S. *Manora* with 200 tons of Portland cement and a set of diving gear with spare hosepipe, wrist rings, &c.; the latter much needed.

ORDER—dated 28th February 1887, No. 591 W., Public Works.

Recorded.

(True Extract.)

Captain, R.E.,
Under Secy. to Govt., P.W.D.

To the Chairman, Madras Harbour Trust Board, with one plan
" Marine Department.
" Consulting Engineer for Railways.

Exd. F. R. Bantleman.
Spare Copies

591/

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of 1887 Madras.

PUBLIC WORKS.

Dated February, 28th.

Recd. *Encl.*

G.O., 28th Feb. 1887, No. 591 W.

FEBRUARY.

Madras Harbour Works

Report of progress on the — during January 1887, recorded.

5th February 1887, No. 318 W., Public Works.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

Read—the following letter from the Hon. R. W. BARLOW, C.S., Chairman, Harbour Trust Board, to the Secretary to Government, Public Works Department, dated Madras, 31st January 1887, No. 2050:—

I have the honor to forward, for your information, copy of letter, No. 535 M., dated 7th January, from the Superintendent, Madras Harbour Works, reporting upon the progress made during the month of December, together with tracing of harbour in original, which please return.

Enclosure.

From F. N. THOROWGOOD, Esq., M. Inst. C.E., Superintendent, Madras Harbour Works, to the Chairman, Harbour Trust Board, dated Madras, 7th January 1887, No. 535 M.

I have the honor to submit the following report of progress on these works during the past month of December, together with a plan, to facilitate description of what has been done. No attempt was made at work on the two breakwaters until December 13th, as the weather did not appear settled before that date; in fact, on December 9th there was a heavy sea running (the result of a cyclone somewhere south of Madras I believe) which prevented access to either pier of the harbour.

2. *North Pier Works.*—It will be remembered that the titan crane was withdrawn from the north pier end in October last. It had been working on a temporary line of rails of a 20-feet gauge. Before resuming work it was necessary to build in a permanent road of a 16-feet gauge on which both the titan and the wavebreaker crane could advance and retire from the new work to the old and from thence to shore. This involved a great deal of levelling up of masonry, the new work being 11 inches higher than the old, and the building in of a solid and even incline of 1 in 200 for the cranes to advance upon. This work was commenced on December 14th, and all possible pressure was put on to get it done quickly (Christmas day being the only day on which a rest was taken), but the sea was at times so splashy that the progress was much interfered with. By December 31st the incline was nearly completed, but the rails for the crane road were not built in. While this work was in progress, the temporary chain ties extending from the old to the new work were withdrawn and rail cramps were substituted in every row of blocks (formerly they were only placed in alternative rows until a heavy sea had brought the work to its bearings), thereby making the whole of the new work as complete as possible. It will not be possible to bring the cranes on this new piece of masonry for a few days as the cement must have time to set thoroughly. The newly-built portion is shown in neutral tint on the plan. The masonry of this inclined plane contains 155 cubic yards, and as it diminishes by this amount, the concrete "capping" to be subsequently added; the cost of this work has been charged to the sub-head "capping."

3. Very little work was done in the north pier base, as during the first half of the month the weather was bad and boats were hauled up. There were, however, 4,253 tons of stone tipped, and the whole of this was deposited on the advanced curved work of the north pier, levelling up the base where it was lowered by the seas of November 8th, 9th and December 9th.

4. The heap of wavebreaker blocks at the extreme end of the north pier having subsided slightly after the seas of November and December, the wavebreaker crane was moved out on the 20th, and dropped blocks into all vacant spaces and by this means brought the section of the wavebreaker up to its full dimensions at the outer end. There were 60 blocks deposited in this way, and then the crane had to be withdrawn to allow the masonry incline to be built in as already described.

5. *Concrete Blockmaking, &c.*—On December 2nd the blockmaking machinery was again set to work and 205 blocks of 30 tons each were turned out during the month. There were 125 blocks (for the south pier) taken from the north to the south block ground, and to make room, as a temporary measure, blocks are being stacked under the wavebreaker crane on shore. With regard to the work of blockmaking, I propose to invite fresh tenders for labor before April 1st, 1887, the man who at present does this work having received three months' notice to stop.

6. *South Pier Works.*—The only work done at the south pier was that of building in the masonry incline by which the titan will advance from the old to the new work. This has taken up 120 cubic yards of rubble-in-cement and, as described at the north pier, new rail cramps have been substituted for the former chain ties. This work has been carried on under more sheltered conditions than the north pier and is now hard enough to be used. The titan was advanced on December 31st to the foot of the incline and has now to be turned through 90° and advanced forward for building. Unfortunately we have a large heap of old concrete blocks to remove (knocked over in the cyclone of May 1886) before much progress can be made at the south pier superstructure, as the blocks lie on the new line of foundations. I am anxious not to blast them with dynamite if it can possibly be avoided, as each block recovered and placed in the wavebreaker represents a saving of nearly 160 rupees.

7. *Pallávaram Quarries.*—As the sea was unsettled during the early part of the month, no rubble was deposited from boats and consequently the demand for stone was small. There was 11,402 tons quarried and sent to Madras in December, of which about 4,000 tons was clean stone for blockmaking. The railway lines at the quarry were kept in excellent order, but nevertheless one case of derailment occurred on a sharp curve. No harm was done as the speed was very slow. The work at Pallávaram has sustained a great loss by the death of the contractor, G. M. Kazim Ali Nakoy, who was very able and was, moreover, always on the spot personally managing the coolies, which is a great advantage. At present, to avoid disputes which, however, may yet arise, I have allowed the late contractor's father to carry on the work precisely as the son was doing. This plan will answer until I can clear out or measure up the stone quarried, which is a very large quantity distributed over nearly two miles of line. It is imperative that no stoppage of work should occur yet, and on that account I have informed the Board that it is advisable to reduce the stone supply in May (a stormy month) and not before.

8. By June 1st, the quarry will be in a state for a public competition in tendering, and I would propose calling for tenders in April. The late contractor had constructed about two miles of railway, with eight bridges and culverts, heavy rock cuttings and high embankments; but this work was included in his price per ton for stone. The line was not quite completed at his death, and it should be borne in mind that the late contractor's representatives might make a claim on this account, as any fresh hand taking the work would of course be saved the construction of a very awkward piece of railway line. Up to the present date work has been carried on as if nothing had happened, even to the using of dynamite, gunpowder, detonators, &c., all of which have to be supplied by me and deducted from contractor's bills. It should be my endeavour so to arrange that no delay shall occur in the event of a change of contractors at the end of May.

9. *Protective Works to the North.*—The slight protective work to the north of the harbour mentioned in my November report was completed for the present in December, 2,842 tons of stone having been used for the purpose. A separate report will shortly be presented to the Harbour Trust Board, and is only delayed by want of the cross sections (nearly completed) necessary for framing an estimate. The wall of Carlton House I propose to replace by a strong open fence with uprights of old rails. I understand that the Officers' mess occupying the house approve of this. I purposely have not yet attempted to repair any other fallen walls, as I do not at all admit that the cost of so doing should fall on the estimate for restoring the Madras harbour.

10. *Stores received during the month.*—The S.S. *Dacca* arrived in December with 150 tons of Portland cement, 13 bales of canvas and an assortment of carpenters' tools, turning chisels, bench vices and galvanized blocks. The S.S. *India* also brought 180 tons of Portland cement.

11. I also received 311 sleepers from Mr. A. Brown of Tellicherry and 402 from Pálghat supplied by a merchant named Ragavachary. Those supplied by the latter are the cheaper of the two, being Rs. 4-12-0 per broad gauge sleeper delivered on the harbour works. They are of excellent quality.

ORDER—dated 5th February 1887, No. 318 W., Public Works.

Recorded.

(True Extract,)

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

To the Chairman, Madras Harbour Trust Board, with plan.
„ Marine Department.
„ Consulting Engineer for Railways.

Exd. P. L. Pereira.
Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of {1887} Madras.

PUBLIC WORKS.

I

Dated February, 5th. 59 W

Recd. *Encl.*

G.O., 5th Feb. 1887, No. 318 W.

FEBRUARY.

Madras Harbour Works

Report of the progress on the — during December 1886, recorded.

V. & Co. H. T. No. 1

W

Harbour Trust Board Office,

59/W MADRAS, 19th February 1887.

No. 2298

From

The Honorable R. W. Barlow C. S.
Chairman, Harbour Trust Board,
MADRAS,

To

Colonel J. O. Hasted R. E.
~~Chief~~ Secretary to Government,
Public Works ~~Marine~~ *Department.*

Sir,

Chepauk.

I have the honor to forward for your information Copy of letter No. 622 W dated 8th February 1887, from the Superintendent Madras Harbour Works, reporting upon the progress made during the month of January 1887, together with tracing of Harbour in original which please return.

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

R W Barlow
Chairman
Harbour Trust Board

C. Sec H.T.B.

No 622 M.

59/6

From

The Superintendent
Madras Harbour Works.

To

The Chairman
Harbour Trust Board.
Madras

Madras 8 February 1887.

Sir.

I have the honour to submit the following report of the progress on these works, during the past month of January 1887, with a plan shewing in red the present terminations of the two breakwaters.

North Pier Works.

2. At the North pier the rubble base was levelled up, and extended considerably, but most of the stone was used in making good places where subsidence had occurred, there were 10,544 tons of rubble used at this work.

on

3. On the 9 January, the roads being all complete, the Titan crane was run out to the end, and on the 10th and 11th turned round and brought into position for setting blocks. From the 12th to the 31st there were 94 concrete blocks set in the superstructure, advancing it by a length of 55 lineal feet, and making the total length of new work now completed 285 feet. The progress during February will be more rapid.

Concrete Blockmaking

4. Blockmaking was carried on with fair regularity, throughout the month of January but was interrupted by the native festival of Pongal. There were 198 blocks (representing nearly 5.000 tons of concrete) turned out in the month. Of this number 161 were 30 ton blocks for the wave breakers of which a very large number will be required, in April and May, to secure the newly built work.

South Pier Works

5. The rubble base at the South Pier was levelled up, to a small extent, where subsidence had occurred, and 2500 tons of stone were used for that purpose.

6. On January 6th the Titan crane was run out to the end of the pier, and on the 7th was turned into its proper position, for block-setting. In para 6 of my last progress report I pointed out, that a large number of blocks overturned in May 1886 were heaped up in advance of the new superstructure. These had to be handled with great care, but by means of dynamite, claws, and sling chains several blocks were recovered and 20 blocks of the new superstructure were successfully set, advancing the new work by a length 13 feet. The recovered blocks are being dropped over the North pier wall to aid in forming the wave-breaker. There is now a length of 185 feet of new superstructure completed.

Work

Pallaveram Quarries.

7. Work has been carried on at the usual speed at the quarries during January although quarrying has been slacker than it ought to be at this time of year. The temporary contractor is not wholly to blame for this, as he has felt very uncertain as to how long he is to work. The outturn however has been fair, but not so great as I should have wished, 16,696 tons of stone having been delivered during the month. It will be as well to note in this connection that as the Board accepted the tender of a new contractor from February 1st and ordered me to assist him in carrying out work under a specification, which I repudiated I have been compelled to resign my post as superintendent of the Madras Harbour Works.

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I have the honour to be
Sir
Your most obedient servant
(Signed) F. H. Thorowgood
Superintendent
Madras Harbour Works.

(True copy)

HARBOUR TRUST BOARD
19 FEB. 87
MADRAS.

C Pinsent
Secretary
Harbour Trust Board

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civil works

No. 591. W. d/ 28 Feby: /87

Recorded.

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G.O. No. 318 W. d/ 5. 12. 87

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7/3

Chairman, M. H. T. B. with 1 plan.
Marine dept
C.E. for Railways

MARINE DEPARTMENT.

FROM

THE CHAIRMAN,
HARBOUR TRUST BOARD,
MADRAS,

TO

THE SECRETARY TO GOVERNMENT,
Public Works ~~Marine~~ Department.
Chepauk.

DATED 19th February 1887
RECEIVED

ENCLOSURE

No. 2202

SUBJECT.

Forwarding for the information of Govt. Progress Report of the Madras Harbour during the month of January

With order

1411

PUBLIC WORKS

1/3/18

G.O. 28 Feb 1887, No. 591 W

Madras Harbour work

Report of Progress on the —— during January 1887, recorded

60/5