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TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

Public works DEPARTMENT

G.O. No. / B.P. No:	875 W	Press. / Mis.
Dated 12-10-1883		198 .

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Archives 1--10,005 1 -80.

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GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

READ—the following letter from F. N. THOROWGOOD, Esq., M.INST. C.E., Superintendent, Madras Harbour Works, to the Secretary to Government, Public Works Department, dated Madras, 3rd October 1883, No. 25 W.:—

Although very little constructive work has been carried on since January 1st' 1883, it seems advisable that I should briefly inform Government of the state of the harbour works at the close of the south-west monsoon. I therefore have the honor to submit the following report.

2. *General Aspect of the Harbour Works.*—No change has occurred in the arrangement or extent of the ruined blocks since this year commenced. The sea has been very quiet and consequently no blocks have been shifted from their position. In fact the damaged portions of the piers are practically in exactly the same state as they were on November 13th, 1881.

3. Along the shore line between the piers the action of the reflected waves of the south-west monsoon coming off the north pier has caused an erosion of sand and a deepening of water near the commencement of the north pier. Indeed, the rubble of the surf bank has been attacked and undermined to a certain extent. Further or serious damage will be prevented by rolling in heavy gneiss boulders of which a supply is near at hand. This protective work is now being carried on.

4. *North Pier.*—During the year 1882-83 the north pier was strengthened by fixing clamps between the inner and outer rows of top blocks, fastening the two rows securely together. Granite or gneiss foreshore was also thrown over to protect the foot of the seawall from undermining. The top of the pier has been recently made up and levelled with strong cement concrete, and five stone mooring posts or "bollards" have been fixed for the convenience of small craft in the harbour.

5. In spite of the slight protective works just mentioned, it is evident that some movement still takes place in the north pier. The centre joint has opened nearly two inches in some places where there are no clamps, and even the clamped work shows evident signs of vibration, as manifested by the breaking up of the concrete near the centre joint.

6. *Protective Works and Compensation Claims to the North.*—The sea has encroached considerably to the north of harbour. Where the shore is protected by a stone revetment no damage is done, but immediately beyond this the encroachment is very severe, threatening to destroy the really good houses which are now Government property. The amount of money expended on the protective revetment (now discontinued) is Rs. 2,12,397, the amount expended upon compensation to owners of property for damage done is Rs. 52,182, and the amount paid for land is Rs. 1,51,068, giving a total of no less than Rs. 4,15,647 for this contingent expense of the harbour works. And while touching upon this subject I must remark that the inhabitants of the villages where the sea encroached are proving themselves to be entitled to very little consideration. Their one object is to obtain money from Government on account of some real or imaginary damage to their houses. Having obtained some compensation

on the ground of being "houseless," they quietly settle down in some hut on the newly acquired Government land, and to extract one anna of rent from them is, frequently, well nigh impossible. If they get a notion that a house or hut is about to be taken up for the harbour works they will proceed to clear out all the fixtures and make away with them. It must not be thought that these measures go on without most vigorous attempts to stop them, but it is in spite of all the efforts of this staff that they occur, and in spite also of the more powerful hand of the law.

7. With regard to the steady encroachment of the sea itself, I think it is time that a line should be drawn as a limit of the responsibility of the harbour works. Property is now being acquired by the Collector three miles away from these works, and if the harbour is to be held responsible for slow and steady encroachment so far north as that, it is hard to see by what logical inference we can avoid responsibility for another three miles.

8. From old histories of this coast it appears absolutely and perfectly certain that the sea has always been liable to encroach at some points, and in the seventeenth century Fort St. George was in imminent danger. My own belief is that the sea would encroach to the north if there were no harbour at all, although it is impossible to doubt that the sudden and severe encroachments within a mile of the north pier (which occurred during its construction) are attributable to the sudden projecting into the open sea of a solid obstruction.

9. *South Pier.*—The south pier has been levelled up smooth and clamped together with 213 iron clamps, and is altogether in a satisfactory state. No protective foreshore of rubble stone was deemed necessary to this work. The shore to the south of the harbour continues to advance slowly seaward.

10. *Quarries.*—From Pallávaram quarries 4,961 tons of gneiss stone have been received since January 1st, but since March the quarries have been practically closed, a payment having been made to the contractor for stone quarried and stacked but not loaded into wagons. (Sanctioned by G.O., No. 1633 W., dated 11th June 1883.) The Ambátúr quarry for laterite is also closed and dismantled, the railway plant and materials being sold to the Madras Railway Company.

11. *Repairs to Plant, &c.*—The small working staff that I have retained on the works have been occupied in overhauling and repairing plant and machinery. The three locomotive engines are being put into thoroughly good order, and the four boilers of the stationary engines have been completely overhauled and all faults made good. The machinery employed for screwing the moorings in 1881 has been dismantled, painted and laid aside. The pontoon of boats used as a substitute for the two ill-fated steamers, *Hobart* and *Salisbury*, has also been dismantled and hauled up. The mooring screws and mooring chains and shackles have all been carefully sorted, stacked away, and thoroughly well served over with boiling tar. At the beginning of the year the clearing away of the wrecks of the two steam hopper barges was completed, and the broken materials were returned to the yard to be sold by auction.

12. *Sale of Materials.*—A considerable sum has been realized by the sale of various articles from the works, details of which I subjoin :—

	Rs.
Madras cement sold to officers of the Public Works Department ...	8,104
Timber sold to private persons	312
Plates of hopper barges and old railway material	8,819
Material of hopper barges	3,692
Total ...	20,927

Another sale of old materials will shortly take place.

13. *Cement.*—The Madras Cement Works continued to supply excellent cement up to the end of May, when their contract expired. It is greatly to be regretted that the price of Rs. 40 per ton is not reduced, as I am able to prove that the English Portland cement delivered on these works costs less. The price of Portland cement in England, as last supplied through the India Office to these works, was 39*s.* 3*d.* per ton, or Rs. 23-8-10 at the fixed rate of exchange for the year. Freight and landing

charges amount to Rs. 14-10-1 per ton, giving a gross cost of Rs. 38-2-11 per ton of first-rate English Portland cement in the sheds of the Madras Harbour Works. Supposing that for the work of restoration 20,000 tons of cement will be required, there would be a saving of Rs. 36,250 in obtaining it at Rs. 38-2-11 per ton instead of at Rs. 40. But it may be presumed that the local manufacturers would reduce their price in the face of these figures.

14. In conclusion I may remark that incomplete and broken as the harbour piers now are, there is no manner of doubt that the advantage they afford to vessels coming within their shelter is immense on all days of ordinary weather, and this strengthens the belief that if the works be efficiently restored, it is hard to put a limit on the benefits that may be hoped for in really smooth and quiet water.

Order—dated 12th October 1883, No. 2875 W., Public Works.

Recorded.

(True Extract.)

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

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

Exd. E. Fernandez.
Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of {1883} Madras.

PUBLIC WORKS.

Dated October, 12th.

Recd. *Encl.*

G.O., 12th Oct. 1883, No. 2875 W.

OCTOBER.

Madras Harbour Works

Report by the Superintendent on the present condition of the —, recorded.

B/2875

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

READ—the following letter from F. N. THOROWGOOD, Esq., M. INST. C.E., Superintendent, Madras Harbour Works, to the Secretary to Government, Public Works Department, dated Madras, 6th June 1883, No. 12 W.:—

I have the honor to ask for the orders of Government on the following point connected with the temporary stoppage of these works.

2. It will doubtless be known to Government that during the last six months of construction of these works, from May to November 1881, nearly all the stone required for blocks or rubble base was obtained from Pallávaram quarries. Since the damage by the storm of November 12, 1881, during 1882 more than 77,000 tons of rubble have been used for protecting the work that remains, for making a heavy revetment to the north, and for the manufacture of concrete blocks. For this latter purpose a large quantity of very excellent hard clean stone was quarried in the belief that it would very shortly all be used up.

3. On my resuming charge of the works March 6, 1883, I stopped all work of construction and of blockmaking, as I did not know what kind of blocks would be required. As a consequence to this there remains on the quarry site at Pallávaram about 8,000 tons of the best clean granitic rock, ready heaped up for loading into wagons, but the use of which must be postponed *sine die*.

4. The quarrying is in charge of a Muhammadan Contractor, G. M. Kazim Ali Nakvy Sahib, whose tender was accepted in 1877, and who has been carrying on the quarrying work most creditably ever since. At his own cost he has made 1½ miles of railway into the quarry (the rails being lent by these works), and it is by no fault of his that the sudden stoppage of work leaves him with so large a stock of stone quarried on his hands.

5. If work were going on now at only a slow speed, or prospects of full work were in the immediate future, I should have paid this contractor for the stone collected (but not loaded into wagons) at three-fourths of the full price per ton. This has always been done at both quarries since the work began.

6. Under the present circumstances, however, I think it right to address Government specially on the subject, and ask to be allowed to pay an advance of half the contract rate per ton on the stone accumulated.

7. The contractor does not demand the full three-fourths of the contract price, but only asks for something in the way of compensation for the money he has spent in quarrying and collecting the stone and in maintaining his railway without any return. I have roughly measured the quantity of stone, but a more accurate measurement shall be taken before making a payment, as I think the contractor's estimate of 8,000 tons is excessive.

8. I think the demand is fair and reasonable, and it is one that, in the regular procedure of the work, has been always granted, and indeed was stipulated for in the contract for the Ambatúr quarry. I therefore very respectfully ask that a payment at half the contract rate per ton be sanctioned.

ORDER—dated 11th June 1883, No. 1633 W., Public Works.

Sanctioned as proposed by the Superintendent, Madras Harbour Works, the stone in question being properly mortgaged to Government.

(True Extract.)

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

To the Superintendent, Madras Harbour Works.
" Examiner, Public Works Accounts.

Exd. A. F. Goodall.
Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of {1883} Madras.

PUBLIC WORKS.

Dated June, 11th.

Recd. *Encl.*

G.O., 11th June 1883, No. 1633 W.

JUNE.

Madras Harbour Works

Payment of compensation to the quarrying contractor at half the contract rate per ton for stone accumulated by him during the sudden cessation of work, sanctioned.

5/2875

22ND SEPTEMBER 1883, No. 2662 W., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

READ—the following letter from Colonel H. P. BROWNLOW, R.E., Deputy Secretary to the Government of India, Public Works Department (Civil Works—Miscellaneous), to the Secretary to the Government of Madras, Public Works Department, dated Simla, 6th September 1883, No. 341 M. :—

With reference to your letter No. 1856 W. of the 4th July 1883, submitting a report by the Committee appointed in Madras to consider the best means for restoring the Harbour Works, I am directed to forward a copy of the Notes drawn up by officers of this department on the subject, for any remarks which the Committee may desire to offer on the suggestion made by Mr. Molesworth.

ORDER—dated 22nd September 1883, No. 2662 W., Public Works.

The Notes received with this letter will be referred, for consideration and remarks, to the Committee appointed on 30th April 1883 to report on the subject of the restoration of the Madras Harbour Works.

2. The Committee will re-assemble under the Presidentship of Colonel J. O. Hasted, R.E.; and their remarks should be submitted at an early date.

(True Extract.)

(Signed) J. SHAW-STEWART, Colonel, R.E.,
Secretary to Govt., P.W.D.

To Colonel J. O. Hasted, R.E., with spare copies of enclosures for distribution.
" Captain J. H. Taylor, R.N.R.
" T. E. Marshall, Esq.
" F. N. Thorowgood, Esq.
" N. St. B. Beardmore, Esq.
" Major C. Bowen, R.E.

Exd. E. Fernandez.
Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of {1883} Madras.

PUBLIC WORKS.

Dated September, 22nd.

Recd. *Encl.*

G.O., 22nd Sept. 1883, No. 2662 W.

2753

SEPTEMBER.

Madras Harbour Works

Notes drawn up by Mr. Molesworth and other Public Works Officers of the Government of India on the subject of the restoration of the — referred to the Madras Committee appointed to consider the subject.

Read the following letter

No. 25 W

From

The SUPERINTENDENT,
MADRAS HARBOUR WORKS,

To The Hon: J. W. M. Shaw Stewart, C.E.
Secretary to Government
Public Works Department,
Fort Saint George

Madras, 3 October 1883

Sir,

Although very little constructive work has been carried on since January 1st 1883, it seems advisable that I should briefly inform Government of the state of the Harbour Works at the close of the South West Monsoon. I therefore have the honour to submit the following report.—

General Aspect of the Harbour Works.

2. No change has occurred in the arrangement or extent of the ruined blocks since this year commenced.— The sea has been very quiet and consequently no blocks have been shifted from their position. In fact the damaged portions of the piers are practically in exactly the same state as they were on November 13th 1881.—

Hong

3. Along the shore line between the piers the action of the reflected waves of the S.W. Monsoon coming off the North Pier has caused an erosion of sand and a deepening of water near the commencement of the North Pier. Indeed the rubble of the surf bank has been attacked and undermined to a certain extent. Further serious damage will be prevented by rolling in heavy gneiss boulders of which a supply is near at hand. — This protective work is now being carried on. —

North Pier

4. During the year 1882/83 the North Pier was strengthened by fixing clamps between the inner and outer rows of top blocks, fastening the two rows securely together. Granite or gneiss foreshore was also thrown over to protect the foot of the sea wall from undermining. The top of the pier has been

I
1875 No 2

been recently made up and levelled with strong cement concrete, and five stone mooring posts or "bollards" have been fixed for the convenience of small craft in the Harbour. —

5. In spite of the slight protective works just mentioned it is evident that some movement still takes place in the North Pier. The centre joint has opened nearly two inches in some places where there are no clamps, and even the clamped work shews evident signs of vibration, as manifested by the breaking up of the concrete near the centre joints.

Protective works & compensation claims to the North. —

6. The sea has encroached considerably to the North of Harbour. Where the shore is protected by a stone revetment no damage is done, but immediately beyond this the encroachment is very severe, threatening to destroy the really good houses which are now Government property. — The amount of money expended

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South Pier.

9. The South Pier has been levelled up smooth and clamped together with 218 Iron clamps, and is altogether in a satisfactory state. No protective foreshore of rubble stone was deemed necessary to this work. The shore to the South of the Harbour continues to advance slowly seawards.—

Quarries.

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3/2875 p4

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Steamers

steamers "Hobart" & "Salisbury" has also been dismantled and hauled up.— The mooring screws and mooring chains and shackles have all been carefully sorted stacked away and thoroughly well served over with boiling tar. At the beginning of the year the clearing away of the wrecks of the two steam Hopper Barges was completed and the broken materials were returned to the yard to be sold by auction.

Sale of materials.

12. A considerable sum has been realized by the sale of various articles from the works, details of which I subjoin.—

	Rs	a	p
Madras Cement sold to offices of the Pr. Dept	8,104	0	0
Timber sold to private persons	312	0	0
Plates of Hopper Barges and old railway material	8819.	0.	0
Material of Hopper Barges	3692	0.	0
Total	Rs 20,927.	0.	0

Another sale of old material will shortly take place.

Cement

13. The Madras Cement Works

continued

10/2875 h 5

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I have the honour to be,
Sir,
Your most Obedient Servant
F. Flinn Wood M. Inst. C.E.
Superintendent
Madras Harbour Works

A 1633 w 11.6.83
2662 w 22.9.83 B. 6

Hon. H.E. Stokes

Rec'd 3rd Oct.

No 2875 Way 12 Oct 83

Recorded

6.10.83.

In. No. 8537

Buildings & Roads

From
The Superintendent
Madras Harbour Works.

No 25 W
Dated 3d October 1883
Rec'd —

No Enclosures Nil

Rec'd 18/10

Supt M. H. Works 4
Master Attendant 5.
Marine Dept 7
25

Madras Harbour.

Submits a Report showing the condition of the — at present.

Write Order

02 8.10 Cir 6/10 05 4/10 R 9/10 R 11/10

8537

Govt. of (1883) Madras.

PUBLIC WORKS.

15/10

Dated

Read. Encl.

G. O., 12 Oct 1883. No. 2,075

Nos.

Remains Harbour works

Respecting the Superintendence of the present condition of the ——— recorded

12/7

Entered in Receipt Register