Archives I —10,006—16-8 77.

(1) Number of pages 26

(2) Date of repair 20.X.86

(3) Initials of the Referencer Lens ✓

TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

P.W.D **DEPARTMENT**

G.O. No. / B.P. No.	570 — W	Press. / Mis.
Dated	19-2-1879	197 .

Not to be folded or roughly handled

510
1

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

19th February 1879, No. 510 W.

Buildings and Roads.
Civil Works.

Read the following paper:—

No. 167. From N. St. B. BEARDMORE, Esq., C.E., Assistant Superintendent, Madras Harbour Works, to the Secretary to Government, Public Works Department (Buildings and Roads), dated Madras, 11th February 1879, No. 68 W.

With regard to your memorandum, No. 560, dated the 6th instant, inquiring for the progress report on these works for the month of January 1879, I have the honor to inform you that Mr. Thorowgood's indisposition prevented him writing it at the ordinary period; but that hoping to do so he put it off from day to day until now, when he has requested me to submit to you the following monthly report as usual.

2. North Pier.—Owing to bad weather which lasted from the 15th until the 22nd of January, to native holidays, and partly owing to the Titan crane being under repairs, no blocks were set at the north pier. The length of the pier therefore is the same as at the end of last month, viz., 1,350¼ feet from point B. The rough weather and the holidays also prevented in some measure the deposition in the sea of the rubble base, yet 9,524 tons were added to it. Of this 4,781 tons were taken out by the steam vessels *Hobart* and *Salisbury*, and 4,743 tons by cargo and masulah boats.

3. Blockmaking.—A total number of 221 concrete blocks were made during the month of January. Of these 170 were made by machinery on the block grounds near the north pier, and 51 by hand-labor on the block ground near the south pier. The portion of the block ground at the south pier constructed in a form suitable to make blocks on is now filled up; and on the remaining portion of the ground, when the Goliah there is erected, blocks, which will be brought from the north pier grounds, will be stacked.

4. Quarries.—The work of quarrying stone has progressed as usual, except that for twelve days on account of rough weather the trains from Ambatur had to be cancelled, and for that period no stone was brought from there, and for about eight days the trains on the South Indian Line of Railway had to be cancelled for the same reason. From Ambatur 12,609 tons of laterite, large and small, were received, and since the 24th ultimo four trains have been loaded each day at the quarries. From Pallavaram and the neighbourhood 5,698 tons of stone for rubble base, and 1,750 tons for concrete blockmaking, were received.

5. On the 1st January the extension of the South Indian Line of Railway from St. Mary's Cemetery road to the beach was handed over to the South Indian Railway Company under the directions of Government, and they now work and maintain the line. The trains have not lately been run regularly by this Company, owing, it is thought, to an insufficient quantity of rolling stock.

6. South Pier.—In the superstructure of the south pier 170 blocks were set, advancing the pier 110½ feet, and making the total length from the point E, 810½

feet. In the rubble base 6,824 tons were deposited by the steam barge *Salisbury* by boats and catamarans, and 1,430 tons were thrown from the top of the Titan or from the break-water. More work would have been done both in the superstruction and in the rubble base of the south pier but for the rough weather, which interruption in conjunction with the Native Deepavali festival, as noted above, lasted from the 13th until the 23rd of January.

7. SEA ENCROACHMENT WORKS NORTH OF THE HARBOUR.—Only 548 tons of stone were used in the protective works at Royapuram during January, as the works are approaching completion and the roadway is nearly made up to a width of thirty feet as ordered.

8. ADVANCE OF THE BEACH SOUTH OF THE HARBOUR.—The groyne near the Fort has been completed, the formation of it having consumed about 270 tons of stone, making it a length of about 80 feet. It appears to a certain extent to fulfil the purpose for which it has been constructed.

9. STEAM BARGES.—Some damage occurred to the steam barge *Hobart* on the 27th January, by which one of the doors of the stone compartment was broken. This fact has been already reported to you; and in accordance with the orders of Government, dated 31st January, the *Hobart* sailed to Calcutta on the 2nd instant, to be docked there and have the damage repaired. Advices have been received from her Commander, dated the 6th February at Cocanada, into which port he was obliged to put in order to clean out the boiler tubes and do other little repairs to the machinery. He intimated that he expected to reach Calcutta about the beginning of this week.

10. STORES AND PLANT FROM ENGLAND.—During the past month the S.S. *Flamingo* arrived from England with two new block trucks, the Goliah crane for the new block ground near the south pier and a small quantity of other spare plant. All of this material has been safely landed. The ship *Sea Queen* also arrived with 2,191 casks, equal to 392 tons of Portland Cement. Most of the cement is also landed.

11. None of the cargo of cement from the ship *James Aiken* has yet been landed, as the case in dispute regarding the damage to her cargo is still *sub-judice*.

12. PLANS AND SURVEYS.—A general plan of the works and a longitudinal section of each pier accompany this report. On the longitudinal sections is shown a section of the bottom of the sea in advance of each pier, taken towards the end of January.

13. The plan also includes a marine survey or chart of the Madras coast reaching from the Saluting Battery near Fort St. George on the south, to a little beyond the Police Tannah at Royapuram on the north, and extending to rather beyond nine fathoms depth of water. It was made by me when the sea was sufficiently quiet during parts of the months, September, October, and November 1878, with additional soundings shown thereon, taken in January 1879. The survey is on a somewhat extensive scale, and included observations on the tides and currents. The survey however being made for the most part during the change of the monsoon the currents were so variable in direction and in speed, that it is thought advisable to make at present no special remark concerning them. From the recent and greater number of tidal observations now taken, it appears that what is known as "Colonel DeHavilland's mean sea level" is not so much above the true mean sea level as stated in our chart of February 1878, but the number of tidal observations is not yet sufficient to give a decided result.

14. EXPENDITURE.—The expenditure on the works during the past month was Rs. 1,07,422. The total expenditure to 31st January has been about Rs. 24,38,751.

15. It remains for me to notify that Mr. Parkes, the Engineer-in-Chief of these works, arrived in Madras from England *viâ* Bombay on the 12th of January.

No. 168. ORDER THEREON, 19th February 1879, No. 510 W.

THE Government observe with satisfaction the more favorable estimate which has been formed of the correctness of Colonel DeHavilland's mean sea level standard.

510/2

2. The survey submitted with the report is interesting, and seems to indicate an improvement as regards high-water mark.

3. Paragraph 5 of the report will be communicated to the Consulting Engineer for Railways for inquiry.

(True Extract.)

Colonel, R.E.,
Ag. Secy. to Govt., P.W.D.,

To the Superintendent, Madras Harbour Works.
" Marine Department.
" Consulting Engineer for Railways.

Exd. E. C. Shunker.
Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of {1879} Madras.

PUBLIC WORKS.

To

THE SUPERINTENDENT, MADRAS
HARBOUR WORKS.
&c., &c., &c.

Dated February 19th.

Issued

Recd. Encl.

G. O., 19th February 1879, No. 510 W.

FEBRUARY.

Nos. 167-168.

Madras Harbour Works.—Orders on Progress Report of the — for January 1879.

No. 681 W

From

THE SUPERINTENDENT,
MADRAS HARBOUR WORKS,

To

Colonel E. A. Foord R.E.
Secretary to Government P.W.D.
Buildings Fort St. George.

MADRAS, 11 February 1879.

SIR,

With regard to your Memorandum No. 560 dated the 6th instant enquiring for the Progress Report on these Works for the month of January 1879, I have the honour to inform you that Mr. Thorowgood's indisposition prevented him writing it at the ordinary period, but that hoping to do so, he put it off from day to day, until now, when he has requested me to submit to you the following monthly Report as usual

North Pier 2 Owing to bad weather which lasted from the 15th until the 22nd of January, to Native Holidays, and partly owing to the Titan Crane being under repairs, no blocks were set at the North Pier. The length of the Pier therefore is the same as at the end of last month, viz, 1350¼ feet from point B. The rough weather

and

and the holidays also prevented in some measure the deposition in the Sea of the Rubble Base, yet 9524 tons were added to it. Of this 4781 tons were taken out by the Steam Vessels "Hobart" and "Salisbury", and 4743 tons by Cargo and Masulah boats

Blockmaking 3 A total number of 221 Concrete blocks were made during the month of January. Of these 170 were made by machinery on the Block grounds near the North Pier, and 51 by hand labour on the Block Ground near the South Pier. The portion of the Block Ground at the South Pier constructed in a form suitable to make blocks on, is now filled up; and on the remaining portion of the ground, when the Goliah there is erected, blocks, which will be brought from the North Pier grounds, will be stacked.

Quarries 4 The work of quarrying stone has progressed as usual, except that for twelve days on account of rough weather the trains from Ambalûr

Ambatûr had to be cancelled, and for that period no stone was brought from there: and for about eight days the trains on the South Indian Line of Railway had to be cancelled for the same reason. From Ambatûr 12,609 tons of Laterite, large and small, were received; and since the 24th Ultimo four trains have been loaded each day at the Quarries. From Pallâvaram and the neighbourhood 5698 tons of stone for rubble base, and 1750 tons for Concrete block making, were received.

5 On the 1st January the Extension of the South Indian Line of Railway from St. Mary's Cemetery Road to the Beach, was handed over to the South Indian Railway Company, under the directions of Government, and they now work and maintain the Line. The trains have not lately been run regularly by this Company, owing it is thought to an insufficient quantity of rolling Stock.

South Pier 6 In the superstructure of the South Pier

170 blocks were set, advancing the Pier 110¼ feet, and making the total length from the point E. 810½ feet. In the Rubble base 6824 tons were deposited by the Steam barge "Salisbury", by boats and Catamarans; and 1430 tons were thrown from the top of the Titan, or from the breakwater. More work would have been done both in the Superstruction and in the Rubble Base of the South Pier, but for the rough weather, which interruption in conjunction with the native Deepa vali festival, as noted above, lasted from the 13th until the 23rd of January.-

Sea Encroachment Works North of the Harbour

7 Only 548 tons of stone were used in the protective Works at Royapuram during January, as the Works are approaching completion, and the Roadway is nearly made up to a width of thirty feet as ordered

Advance of the Beach South of the Harbour

8 The Groyne near the Fort has been completed, the formation of it having consumed about 270 tons of stone, making it a length

(11) of

of about 80 feet. It appears to a certain extent, to fulfil the purpose for which it has been constructed

Steam Barges 9 Some damage occurred to the Steam Barge "Hobart" on the 27th January by which one of the doors of the Stone Compartment was broken. This fact has been already reported to you, and in accordance with the Orders of Government dated 31st January the "Hobart" sailed to Calcutta on the 2nd instant, to be docked and the damage repaired. Advices have been received from her Commander dated the 6th February at Cocanada, into which Port he was obliged to put in order to clean out the boiler tubes and do other little repairs to the machinery. He intimated that he expected to reach Calcutta about the beginning of this week.

Stores and Plant from England 10 During the past month the S.S. "Flamingo" arrived from England with two new block trucks, the Goliah Crane for

the

the new block ground near the South Pier, and a small quantity of other spare Plant. All of this material has been safely landed. The Ship "Sea Queen" also arrived with 2191 casks, equal to 392 tons of Portland Cement. Most of the Cement is also landed.

11 None of the Cargo of Cement from the Ship "James Aitken" has yet been landed, as the case in dispute regarding the damage to her cargo, is still sub Judice.

Plans & Surveys

12 A general plan of the Works, and a Longitudinal Section of each Pier accompany this Report. On the Longitudinal Sections are shown a Section of the bottom of the Sea in advance of each Pier, taken towards the end of January.--

13 The plan also includes a Marine Survey or Chart of the Madras Coast, reaching from the Saluting Battery near Fort St. George on the South, to a little beyond the Police Tannah at Royapuram on the North

and

570/9

and extending to rather beyond nine fathoms depth of water. It was made by me, when the Sea was sufficiently quiet during parts of the months, September, October, and November 1878, with additional Soundings shewn thereon, taken in January 1879. The Survey is on a somewhat extensive Scale, and included observations on the Tides and Currents. The Survey however being made for the most part during the change of the Monsûn the currents were so variable in direction and in speed, that it is thought advisable to make at present no especial remark concerning them. From the recent and greater number of Tidal Observations now taken, it appears that what is known as "Colonel De Havilland's Mean Sea Level" is not so much above the true Mean Sea Level as stated in our Chart of February 1878: but the number of Tidal observations is not yet sufficient to give a decided result.

510/10 18

Expenditure 14 The Expenditure on the Works during the past month was Rs 107,422. The total Expenditure to 31st January has been about Rs 24,38,751.

15 It remains for me to notify that Mr. Parkes the Engineer-in-Chief of these Works arrived in Madras from England via Bombay, on the 12th of January.

I have the honour to be,

Sir,

Your most obedient Servant,

Rath. B.E. Beardmore C.E.

Asstt. Superintendent

Madras Harbour Works.

(8)

Buildings & Roads

From

The Asstt. Superintendant

Madras Harbour Works

Dated 11th February 1879

No. of Enclosures 3 Rs.

31.1.79 No. 339 W.
6.2.79 = 560. CE.

Progress Report

Submitted — for Jany 1879

Ch 13/2

PUBLIC WORKS DEPARTMENT.

5/10/11

Progress Report of the Madras Harbour Works for January 1879.

FOR ORDERS.

Lieut Col RE
Secretary to Govt
PW Dept

13. Feby 1879

The Govt approve the retrenchments of the connections of Dr Hamilton's Scheme as satisfactory.

The Survey is in ~~progress~~ progress.

Find Govt to be informed & in circt as regards P.W. Harbour.

EB

RG 17/2

FOR ORDERS.

Cn 13/2 Rd. 18/2.

B & R
Works

No. 510 W Public Works Department. 9

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the 19th Feby 1879.

Read the following :—

510/12

From the Asst. Supt.
Madras Harbour Works (Rl No 68 & 9 dt 6th Feb 79)

The more favorable estimate of the corrections of De Havilland's Standard is satisfactory.

The Currency is interesting and seems to indicate improvement in circumstances as regards High Waters Mark.

Supt. Mr. H. Works
Marine Supt.
Asst. Engr. Coast Dept.
Supt. Coast Dept.
Asst. Engr. Coast Dept.
M.P. 15/2 8-3-79

510/13

Govt. of Madras.

PUBLIC WORKS

To

Dated

Issued

Recd. Encl.

G. O., 17 July 1879, No. 5104

Nos. 167-168

Irrigation Barbour tanks

Orders on Progress Report

Vth — for January 1879.