(1) Number of pages 56
(2) Date of repair April. 88
(3) Initials of the Referencer

TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

P.W.D DEPARTMENT

G.O. No. / B.P. No. 2978 W. Press. / Mis.

Dated 7.11.1887 ~~198~~.

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Archives —1 10,006-9 88

7TH NOVEMBER 1887, No. 2978 W., PUBLIC WORKS.

2978/1

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

READ—the following paper :—

Telegram from the Secretary of State, to the Governor of Madras, Madura, dated 27th October 1887.

Madras Harbour Works Committee recommend north-east entrance on plan three (momenia *). Your Public Works despatch 10, 20th May last. A despatch on subject will follow.

* *Note.*—This word is not in the code.

Transferred to the Chief Secretary to Government for disposal.

(By Order.)

(Signed) J. D. REES,
Private Secretary.

GOVERNOR'S CAMP,
31st October 1887.

Transferred to the Public Works Department.

(By Order.)

(Signed) W. S. MEYER,
Asst. Secy. to Govt.

4th November 1887.

ORDER—dated 7th November 1887, No. 2978 W., Public Works.

Communicated to the Chairman, Harbour Trust Board, with reference to G.O., No. 1383 W., dated 20th May 1887, and in continuation of G.O., No. 1898 W., dated 14th July 1887.

(True Extract.)

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

To the Chairman, Harbour Trust Board.
" Marine Department.

Exd. A. Aubert.
Spare Copies

Harbour Trust Board.

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of {1887} Madras.

PUBLIC WORKS.

Dated November, 7th.

Recd. *Encl.*

G.O., 7th Nov. 1887, No. 2978 W.

NOVEMBER.

Madras Harbour

Telegram from the Secretary of State intimating that the Committee in England recommend north-east entrance for the —, communicated to the Chairman, Harbour Trust Board.

4th April 1887, No. 1001 W., Public Works.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

Read—the following telegram from the Secretary of State for India, London, to the Vacillet, Madras, dated 29th March 1887.

Question of harbour entrance will be at once reconsidered and referred to a committee here. Works should be prosecuted with due regard to possible change of plan. Keep me informed of arrangements proposed in view to this.

Transferred to the Chief Secretary to Government for disposal.

(By Order.)

Government House,
30th March 1887.

(Signed) J. D. REES,
Private Secretary.

Transferred to the Public Works Department.

(Signed) H. E. STOKES,
Ag. Chief Secretary.

30th March 1887.

Order—dated 4th April 1887, No. 1001 W., Public Works.

Communicated to the Chairman, Madras Harbour Trust Board, for information and guidance.

2. The Chairman is requested to report what arrangements the Board propose to make for the prosecution of the work.

(True Extract.)

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

To the Chairman, Madras Harbour Trust Board.
„ Marine Department.

Exd. A. Grubert.
Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of (1887) Madras.

PUBLIC WORKS.

Dated April, 4th.

Recd. Encl.

G.O., 4th April 1887, No. 1001 W.

APRIL.

Madras Harbour

Telegram from the Secretary of State
ing that the question of entrance for
— will be at once reconsidered and that
works should be prosecuted with due
ard to the possible change of plan, com-
nicated to the Chairman, Harbour Trust
ard.

89/3

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

Read—the following papers:—

Telegram from Captain J. H. TAYLOR, Port Officer, Madras, to the Chief Secretary to Government, Ootacamund, dated 22nd April 1887.

Trust asks me represent them London Committee. If measure adopted could purchase ship for Government. Save several thousand pounds; good article.

Telegram from the Chairman, Harbour Trust Board, Madras, to the Chief Secretary to Government, Marine Department, Ootacamund, dated 23rd April 1887.

At meeting last evening read Government order, 1001, Works. Resolved that the Board are unanimously of opinion that the Trust should be represented upon the London Committee appointed to consider the question of the north-east entrance to the harbour. The Board suggest that Captain Taylor should be appointed to represent them, and that the proceedings of the committee be stayed by telegraph pending his arrival.

Transferred to the Public Works Department.

Ootacamund,
23rd April 1887.

(Signed) H. E. STOKES,
Ag. Chief Secretary.

Telegram from the Governor of Madras, to the Secretary of State, dated 26th April 1887, No. 46 D.

Port Trust have resolved unanimously Trust should be adequately represented at London Committee appointed consider harbour entrance. Board has suggested that Captain Taylor should be appointed. Could go by next mail if you consent to this.

Telegram from the Secretary of State, London, to the Governor of Madras, Ootacamund, dated 27th April 1887.

Your telegram yesterday. Committee already formed and at work, Admiral Salmon, Nares and Coode, but Taylor may come as witness if you think it desirable.

Order—dated 29th April 1887, No. 1179 W., Public Works.

The telegram from the Secretary of State will be communicated to the Chairman, Madras Harbour Trust Board, with reference to his message of 23rd April 1887.

2. Captain Taylor should be instructed to proceed to England by next mail from Bombay, and should be furnished with a statement from the Board of their ideas on the leading principles upon which the work in future is to be carried out, *e.g.*—

(1) Whether a north-eastern entrance is essential.
(2) The best means of carrying out this object.
(3) Whether it is desirable to make any change in the present design, and, if so, what change.

3. Captain Taylor should in fact clearly understand the Board's views, and be instructed to what extent he is authorised to pledge the Board; and, in examination by the Committee, should be careful to distinguish between the Board's views and his own.

(True Extract.)

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

To the Chairman, Madras Harbour Trust Board.
" Marine Department, with extract from Note by His Excellency the Governor.

Exd. P. L. Pereira.
Spare Copies

9978/11

Harbour Trust Board.

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of {1887} Madras.

PUBLIC WORKS.

Dated April, 29th.

Recd. *Encl.*

G.O., 29th April 1887, No. 1179 W.

APRIL.

Madras Harbour

Deputing Captain Taylor to England to give evidence before the Committee appointed in London to consider the question of entrance for the —.

11th May 1887, No. 1283 W., Public Works. 9 78/3

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 Chief Secretary to Government, Marine Department, dated Madras, 25th April 1887, No. 383 :—

In confirmation of my telegram of 23rd instant, I have the honor to forward post copy of the same, and also the resolution of the Harbour Trust Board referred to therein, passed unanimously at their meeting held on the evening of Friday last, on G.O., No. 1001 W., Public Works, dated 4th April 1887, only received on 18th idem.

2. The Board are very anxious that they should be represented at the forthcoming committee—if it is not already too late—considering, as they do, that a north-east entrance to the harbour is an essential to its success. Captain Taylor, who has always been a warm advocate of such an entrance, has been in command of both steam and sailing vessels on this coast, for many years past, and is minutely acquainted with everything connected with this harbour, as well as with all peculiarities of cyclones, currents, tides, &c., so that if any information is required by the committee while sitting, he would be able to afford it at once and so avoid the delay of references.

3. The Board will be prepared to meet any expenses considered reasonable connected with Captain Taylor's visit to Europe, should the same be sanctioned by Government. They are, moreover, informed by him as Port Officer that there is work to be done at home for Government that would be facilitated and economised by his presence, so that probably only a moiety of the charge need be debited to the Harbour funds, or whatever proportion the Government consider equitable.

Enclosures.

Telegram from the Chairman, Harbour Trust Board, Madras, to the Chief Secretary to Government, Marine Department, Ootacamund, dated 23rd April 1887.

At meeting this evening read G.O., 1001, Works.

Resolved.—that the Board are unanimously of opinion that the Trust should be represented upon the London Committee appointed to consider the question of the north-east entrance to the harbour.

The Board suggest that Captain Taylor should be appointed to represent them and that the proceedings of the committee be stayed by telegraph pending his arrival.

Extract of proceedings of the Harbour Trust Board at a meeting held at the offices of the Board on Friday, the 23rd day of April 1887.

* * * * *

2. Read G.O., No. 1001 W., Public Works, dated 4th April 1887 (received 18th idem), communicating telegram from the Secretary of State for India, dated London, 29th March 1887, stating that the "question of harbour entrance will be at once reconsidered and referred to a committee here. Works should be prosecuted with due regard to possible change of plan. Keep me informed of arrangements proposed in view to this."

Read also Secretary's letter, No. 216, dated 18th April 1887, forwarding the same to the Superintendent, Madras Harbour Works, and his reply thereto, informing the Chairman that without any direct orders as to details he is unable to alter present arrangements as to construction, that he did not know the precise spot where a north-east entrance should be, and that until he received such detailed instructions it is quite impossible to act with a view to such entrance, that he had stopped advancing the arms of the harbour, and was now protecting what has been built; and suggesting that during the "off" month of May, further instructions should be issued.

Read minutes on the subject by Captain Baddeley, R.E., the Honorable Mr. Turnbull and Mr. Eales.

Resolved,—that, assuming that a portion of the wall has to be removed, the Board desire to be informed whether the work now being carried on will in any way interfere with the proposed north-east entrance, and, if so, to what extent.

Resolved,—also that the Board are unanimously of opinion that the Trust should be represented upon the London Committee appointed to consider the question of the north-east entrance to the harbour and that the Chairman be authorised to wire to Government, suggesting that Captain Taylor should represent the Board, and that the proceedings of the committee be stayed by telegraph pending his arrival in England.

* * * * * *

Transferred to the Public Works Department in continuation of endorsement dated 23rd instant.

(By Order.)

Ootacamund,
28th April 1887.

(Signed) W. S. MEYER,
Asst. Secy., M.D.

Order—date 11th May 1887, No. 1283 W., Public Works.

Recorded, with reference to G.O., No. 1179 W., dated 29th April 1887.

2. The question of the incidence of the cost of Captain Taylor's deputation to England will be considered in the Marine Department.

3. This correspondence will be forwarded for the information of the Secretary of State.

(Here enter No. $\frac{8}{1283\text{ W.}}$, dated 11th May 1887.)

(True Extract.)

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

To the Chairman, Madras Harbour Trust Board.
" Marine Department.

Exd. P. L. Pereira.
Spare Copies

9978/6

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of {1887} Madras.

PUBLIC WORKS.

Dated May, 11th.

Recd. *Encl.*

G.O., 11th May 1887, No. 1283 W.

MAY.

Madras Harbour

Correspondence from the Chairman, Madras Harbour Trust Board, on the question of the necessity for the Trust being represented before the Committee appointed in London to consider the question of entrance for the —, recorded.

PUBLIC WORKS DEPARTMENT.

Letter—to

The Right Honorable the SECRETARY of STATE for INDIA.

My Lord,

With reference to our telegram of the 26th April 1887, and your Lordship's reply of the following day, relative to Captain Taylor's deputation to England to represent the Madras Harbour Trust Board before the Committee appointed in London to consider the question of the harbour entrance, we have the honor to forward the accompanying* correspondence containing the resolution of the Harbour Board on the subject.

We have the honor to be,
My Lord,
Your Lordship's most obedient, humble servants,

(Signed) ROBERT BOURKE.
(„) C. G. MASTER.
(„) P. P. HUTCHINS.

Ootacamund,
11th May 1887.

Exd. P. L. Pereira.

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* P.G., No. 1179 W., dated 29th April 1887.
„ „ 1283 W., „ 11th „ „

9978/8

GOVT. OF MADRAS.

PUBLIC WORKS DEPARTMENT.

LETTER to the Right Honorable the Secretary of State for India.

No. $\frac{8}{1283\text{ W.}}$, dated 11th May 1887.

Forwarding correspondence containing the resolution of the Madras Harbour Trust Board on the question of representation of the Trust before the Committee appointed in London to consider the question of entrance for the Madras Harbour.

20TH MAY 1887, No. 1383 W., PUBLIC WORKS.

8278/A

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

READ—the following papers :—

From the Honorable R. W. BARLOW, C.S., Chairman, Harbour Trust Board, Madras, to the Chief Secretary to Government, Marine Department, dated Madras, 4th May 1887, No. 505.

In continuation of my letter, No. 383, dated 25th April 1887, and in reference to G.Os., No. 1001 W., dated 4th April 1887, and No. 1179 W., dated 29th April 1887, I have the honor to submit, herewith, for the information of Government, extract of the proceedings of a meeting of the Harbour Trustees, held on the 29th April 1887, and confirmed at a special meeting held last evening, copy of which proceedings I also forward.

2. The views of the Trustees regarding the proposed north-east entrance are fully expressed in these resolutions, and copies have been communicated to Captain Taylor for his information and guidance.

3. He starts for London this evening, and takes with him the plans referred to, copies of which I have, however, requested the Superintendent to prepare for the information of Government, and they will be forwarded to you at an early date.

4. I also forward copy of a letter received from the Superintendent, No. 108, dated 2nd May 1887, together with the short memorandum, therewith forwarded, explanatory of the four designs above referred to. It will be observed that Mr. Thorowgood, while raising no engineering difficulties regarding plans Nos. III and IV approved by the Board, does not consider a north-east entrance necessary, partly because the harbour, as originally designed, will, he contends, give sufficiently smooth water, and partly for nautical reasons. As regards the former of these conclusions, the Trustees, most of whom, like myself, knew the harbour in 1881, are unanimously opposed, while the latter may be safely left to the committee now sitting in London.

ENCLOSURES.

EXTRACT of proceedings of the Harbour Trust Board, at a meeting held at the offices of the Board on Friday, the 29th day of April 1887.

* * * * *

* In opening the proceedings of the meeting, the Chairman stated that in accordance with the resolution No. 2 passed by the Board at their last meeting, a telegram had been despatched to Government regarding the wish of the Board to be represented upon the committee now sitting in London, to discuss the question of changing the place of entrance to the harbour, from the east face to the north-east corner; that a telegram had been received from the Secretary of State in reference thereto; and that Mr. Thorowgood, who was present, would explain to the Board certain suggestions he had to make, with regard to what, in the present condition of the harbour, he considered the best plan for carrying out the wishes of the Board for a north-east entrance.

The Secretary then read the telegram despatched to the Chief Secretary to Government after last meeting, stating that "At meeting last evening read G.O., 1001, Works. Resolved that the Board are unanimously of opinion that the Trust should be represented upon the London committee appointed to consider the question of the north-east entrance to the harbour. The Board suggest that Captain Taylor should be appointed to represent them and that the proceedings of the committee be stayed by telegraph pending his arrival"; and read also letter from the Chairman, No. 383, dated 25th April, addressed to the Chief Secretary, confirming the telegram, and further explaining the Board's wishes.

Read telegram from the Secretary to Government, Public Works Department, dated Ootacamund, 28th April 1887, stating: "Taylor permitted by Secretary State to go home next mail as witness, not as member of committee. Should take statement from Board on following points:—Whether in opinion of Board north-east entrance is essential; best means of carrying out this object; and whether Board think any change in sanctioned design is desirable, and if so what change."

Resolved, first,—that the Board unanimously adhere to their former resolution No. 2, dated 16th December 1886, that a north-east entrance is absolutely essential to the success of the harbour.

The Superintendent then submitted a plan showing, marked respectively in blue and yellow lines and in red tint—

In blue, No. II.—The plan submitted with his letter, No. 600 M., dated 31st January 1887.

In yellow, No. III.—An entrance immediately adjoining the present termination of the new work on the northern arm.

In red tint, No. IV.—An entrance approximately from half way between the north-east angle of the northern arm and the existing opening.

The Superintendent explained that to carry out plan No. II would necessitate the removal of the whole of the work built at the north pier during several months past, involving the removal of thousands of tons of material and great delay.

That plan No. III would also necessitate considerable delay, and as the site of the proposed north-east entrance must be open before the present one could be closed, it was necessary in this plan to entirely remove the *debris* of the old wall, from the present entrance up to the proposed end of the north pier, before the southern arm could be brought across, and be allowed to close the present entrance; this would occasion great delay in protecting the existing harbour upon the northern half of the eastern face.

No. IV, in red tint.—This plan had the advantage of enabling work to be carried on without interruption upon the present plan, until the southern arm reached the existing opening, by which time the northern pier would have advanced sufficiently to itself afford considerable protection to the enclosed space, the portion of old wall, it would be necessary to remove, could by then have been cleared away, leaving the proposed opening free from all obstruction, and it would only then remain to advance the southern arm in a direct line across the existing opening to the position shown, to afford exactly the same protection to the enclosed space as was provided in the plan submitted with his letter, No. 600 M., dated 31st January 1887, the relative positions of the pier heads of the northern and southern arms in each plan being identical; this plan No. IV had the advantage also of carrying the entrance farther to seaward giving a minimum depth of 8 fathoms in the entrance and from the proposed line the southern arm would take, enabling vessels to enter from a more easterly position, thereby allowing them to keep much further to seaward, and clear of the line of rollers upon their full length.

The matter was discussed at considerable length, and the Superintendent stated further that with regard to the cost of the respective schemes, No. IV would be more economical than No. II, but that he had not prepared an estimate for design No. III, the cost of which would probably not differ greatly from the cost of No. IV.

Captain Taylor suggested that the difficulty might be overcome by making an entrance in shore of the north-east angle of the northern arm, continuing the works on the existing plan, which plan would involve no delay, be economical, and have only the disadvantage of placing the entrance nearer inshore than the proposed entrances Nos. III and IV; he pointed out that against this disadvantage it must be remembered that the sea to the north of the harbour always retains its present depth, and is amply sufficient for all practical purposes. It was, however, considered by the Board that the near vicinity of the shore was a fatal objection to this proposal.

Resolved, secondly, with regard to the best means to be adopted—that the Board, after examining the several plans submitted by the Superintendent, consider the designs Nos. III and IV would be the most suitable; subject to any modifications that the Home Committee may make. The Board consider it undesirable to take up more than is absolutely necessary of the work already built.

Resolved, thirdly,—that in the opinion of the Board the sanctioned design should be altered only in so far as is necessary to provide a north-east entrance without taking up more than necessary of the work already built.

EXTRACT of proceedings of the Harbour Trust Board, at a special meeting held at the offices of the Board on Tuesday, the 3rd day of May 1887, at 4-30 P.M.

* * * * *

Read G.O., No. 1179 W., dated 29th April 1887, communicating telegram from the Secretary of State, dated 27th April 1887, "Harbour Committee already formed and at work—

Admirals Salmon, Nares and Coode, but Taylor may come as witness," * * and stating that Captain Taylor should be instructed to proceed to England by next mail, taking with him a statement of the views of the Board on the leading principles upon which the work is in future to be carried out, and should clearly understand to what extent he is authorised to pledge the Board before the committee.

Read letter, No. 469, dated 2nd May 1887, from the Chairman, Harbour Trust Board, to the Superintendent, Madras Harbour Works, communicating the resolutions of the Board respecting the proposed north-east entrance, at their last meeting, and requesting that he would draw up a memorandum explanatory of the various designs then submitted by him.

Read the Superintendent's reply thereto, No. 108, dated 2nd May 1887, and descriptive memorandum annexed. Examined plans Nos. I, II, III and IV therewith submitted.

The Trustees then proceeded to the head of the northern arm of the harbour, and held a consultation with the Superintendent, and after discussing on the spot at considerable length the respective designs for a north-east entrance, returned to the Board's offices.

Read the minutes and confirmed the proceedings of the last meeting of the Board having reference to the question of the proposed north-east entrance, and resolved that, having now examined the spot, the Board are unanimously inclined to give the preference to design No. III on the grounds that it will give within the harbour a larger area of deep water anchorage, and that it will facilitate the exit entrance and mooring of vessels.

A copy of the Board's proceedings will be communicated to Captain Taylor for his information and guidance.

From F. N. THOROWGOOD, Esq., M.INST.C.E., Superintendent, Madras Harbour Works, to the Chairman, Harbour Trust Board, dated Madras, 2nd May 1887, No. 108.

In reply to your letter of this date, No. 469, I have the honor to submit the following.

2. I send herewith a tracing similar to that which was before the Board on April 29th, on which are shown—

Proposal I (Madras Committee, 1883), red lines.
Do. II (Superintendent's modification, 1887), blue lines.
Do. III (Alternative proposal by Superintendent), yellow lines.
Do. IV (do. do.), red tint.

I also, for clearness sake, forward a small plan of each of these designs separately, marked I, II, III, IV. With these plans is a short descriptive statement of each, which I trust meets the requirements of your paragraph No. 2.

3. In reply to your 3rd paragraph, I am inclined to prefer the (No. III) design in yellow lines for many reasons, but there is a strong objection against it practically, namely, that it involves deciding *at once* on stopping work at the north pier, whereas with design No. IV (in red color) work could go on during June and throughout the season as before. This, with all the machinery and diving staff on hand and with blocks ready for another 150 feet of north pier, is a very serious consideration.

4. I must ask you to record, and I should like the committee in England to be aware, that I do not myself wish for a north-east entrance, nor do I think it essential to the success of the harbour. On the contrary I do not at all feel sure that, in a heavy rolling swell, vessels would not feel a north-east entrance worse to navigate than the easterly one, as they would enter with their lengths parallel to the crests of the waves. Moreover, as I have stated before, I cannot but believe that those who so strongly advocate closing the eastern entrance forget what this harbour was like in September 1881, when some 18 native craft, some of large size, anchored comfortably in the northern half of the harbour, and two large sailing ships* lay calmly at moorings in the southern half. At this time the entrance was 100 feet wider than the proposed eastern entrance will be, and the walls were 6 feet lower than those now proposed. Doubtless a north-east entrance will give smoother water, but at a cost of some 20 lakhs of rupees, and, to my thinking, of a very doubtful entrance. I therefore must record that I should prefer adhering to the design of August 1884 now under consideration.

* "Mars."
"Mofussilite."

MADRAS HARBOUR.

DESCRIPTION of different proposals for a north-east entrance to accompany plans and tracing.

Proposal No. I (in *red lines* on tracing).—This is the design proposed by the special committee in Madras, 1883, and reported unfavorably upon by Sir John Hawkshaw's committee, 12th March 1884, in Westminster.

Harbour Trust Board.

As proposed by the Madras committee, it was supposed to be built of random blocks over the existing lines of ruined piers. At the present time such a system is out of the question, as the plant is not adapted for such work.

The objections to this design are (1) that 400 feet of the newly built work, with wave-braker complete, would have to be taken up; (2) that the concave arm towards the east is a weak point; (3) that two entrances will have to exist at the same time; and (4) that its cost is too great.

Roughly speaking, the cost of this scheme (now that the entrance is nearly closed) I estimate at Rs. 65,47,000 as compared with Rs. 45,90,051 of the design now under construction.

Proposal No. II (in blue lines on tracing)—is a modification of the above so as to avoid the concave curve. I estimate its cost at Rs. 66,00,000.

Proposal No. III (in yellow lines on tracing).—This design does away with the necessity of taking up any of the new superstructure work, and proposes to build a pier head at the present termination of the new work, north pier. At the same time it means suspension of work at this pier and consequent slow progress at one pier only.

The south pier is to be carried across the eastern entrance and extended as shown.

The drawback to this design is that the whole of the ruined work and much of the new rubble base has to be removed, and for a time the harbour would be perfectly open to the north-east.

I estimate the cost of this design at Rs. 61,00,000.

Proposal No. IV (in red tint on tracing).—This is the plan which finds most favor with the Harbour Trust Board. Its advantages are (1) that only a very small portion of the old ruined wall and rubble have to be cleared away; (2) that during construction there will never be more openings than the proposed entrance through which the sea can come; and (3) that it allows of work being proceeded with as at present at least for four months or more.

The cost of this design I estimate at Rs. 62,95,001.

MADRAS,
2nd May 1887.

(Signed) F. N. THOROWGOOD,
Superintendent, Madras Harbour Works.

Transferred to the Public Works Department.

(By Order.)

OOTACAMUND,
13th May 1887.

(Signed) W. S. MEYER,
Asst. Secy., M.D.

From the Honorable R. W. BARLOW, C.S., Chairman, Harbour Trust Board Madras, to the Chief Secretary to Government, Marine Department, dated Madras, 11th May 1887, No. 639.

In continuation of my letter, No. 505, dated 4th May 1887, I have now the honor to submit, for the information of Government, the four plans of the Madras Harbour referred to therein, showing the various proposals for constructing a north-east entrance, submitted to the Board by the Superintendent at their meeting of 29th April.

Transferred to the Public Works Department.

(By Order.)

OOTACAMUND,
17th May 1887.

(Signed) W. S. MEYER,
Asst. Secy., M.D.

ORDER—dated 20th May 1887, No. 1383 W., Public Works.

Ordered to be forwarded to the Secretary of State for India.

(Here enter No. $\frac{10}{1383}$ W., dated 20th May 1887.)

(True Extract.)

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

To the Chairman, Madras Harbour Trust Board.
" Marine Department.

Exd. P. L. Pereira.
Spare Copies

2978/11

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of (1887) Madras.

PUBLIC WORKS.

Dated May, 20th.

Recd. *Encl.*

G.O., 20th May 1887, No. 1383 W.

MAY.

Madras Harbour

Correspondence containing the views of the Madras Harbour Trust Board on the question of a north-east entrance for the —, ordered to be forwarded to the Secretary of State.

20TH MAY 1887, No. $\frac{10}{1383}$ W., PUBLIC WORKS.

9278/12

PUBLIC WORKS DEPARTMENT.

LETTER—to

THE RIGHT HONORABLE THE SECRETARY OF STATE FOR INDIA.

MY LORD,

In continuation of our despatch No. $\frac{8}{1283}$ W., dated 11th May 1887, and with reference to your Lordship's telegram of the 29th March 1887, intimating that the question of the harbour entrance would be reconsidered and referred to a committee in London, and requesting to be informed of arrangements proposed in view thereto, we have the honor to forward the accompanying copy of a letter * from the Chairman, Harbour Trust Board, with enclosures, containing the Board's views on the question.

We have the honor to be,
My Lord,
Your Lordship's most obedient, humble servants,

(Signed) CONNEMARA.
(„) C. G. ARBUTHNOT.
(„) C. G. MASTER.
(„) P. P. HUTCHINS.

OOTACAMUND,
20th May 1887.

Exd. P. L. Pereira.

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* Proceedings of Government, No. 1383 W., dated 20th May 1887.

9978/13

GOVT. OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Letter to the Right Honorable the Secretary of State for India.

No. $\frac{10}{1383\text{ W.}}$, dated 20th May 1887.

Forwarding correspondence containing the views of the Madras Harbour Trust Board on the question of a north-eastern entrance for the Madras Harbour.

7th June 1887, No. 1517 W., Public Works.

8978/4/1

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

Read—the following circular from the Government of India, Public Works Department (Civil Works—Miscellaneous), dated Simla, 21st May 1887, No. 165 M. :—

The undermentioned paper is forwarded to the Government of Madras, Public Works Department, for information, with reference to correspondence ending with its letter, No. 51 D., dated 27th April 1887.

(By Order.)

(Signed) R. B. BUCKLEY,
Under Secretary.

Enclosures.

Despatch from the Government of India, Public Works Department, Civil Works, Miscellaneous, to the Right Hon'ble VISCOUNT CROSS, Her Majesty's Secretary of State for India, dated Simla, 16th May 1887, No. 25, Public Works.

Proceedings of the Government of Madras, Nos. 784 W. and 785 W. of the 14th March 1887.

In Public Works Despatch, No. 1, dated the 3rd February 1887, addressed to His Excellency the Governor of Madras, your Lordship referred to the action taken by the Harbour Board with reference to the authorized design of the Madras Harbour. We have received from the Secretary to the Government of Madras the papers marginally noted, of which copies have already, we understand, been forwarded to your Lordship by His Excellency the Governor. These papers afford an explanation concerning the action taken by the Harbour Board which will no doubt be accepted as satisfactory, for it is clear that the Board had no intention of carrying into execution any alteration in the harbour without the sanction of competent authority, while they were not in any way exceeding their authority in asking the Superintending Engineer of the works to prepare a design for any proposals which they might wish to make.

2. In Lord Kimberley's Despatch, No. 56 P. W. of 25th September 1884, reference was made to the views of Sir John Hawkshaw's Committee and to those of Mr. Parkes, on the subject of the proposed change in the position of the entrance to the harbour, and it was said that "Mr. Thorowgood, who is in full possession of Mr. Parkes' views, and of the reasons which have led him and the committee to adhere to the eastern entrance, has already started on his return to Madras, and will be able to furnish the authorities there with any additional particulars they may require, and it is to be hoped that conflicting views may be reconciled by further discussion."

Letter, dated 9th March 1882, from Mr. Parkes, to the Secretary to Government of Madras, Public Works Department, paragraphs 44 and 45.

Letter, dated 10th February 1883, from Mr. Parkes, to the Under Secretary of State for India, paragraph 14.

3. At the time when this despatch was received we thought it better to take no immediate action concerning the question of the entrance, partly for the reason that it was evidently our duty to allow scope for the further discussion which Lord Kimberley thought would have beneficial results, and partly because there was no apparent advantage to be gained by attempting to arrive at an early decision on the matter. The opinions expressed by Mr. Parkes in the documents noted in the margin showed that, if it should prove desirable to alter the entrance, the alteration could be both more cheaply and more expeditiously made when the works had been completed in accordance with the authorized design.

4. The difference of opinion to which Lord Kimberley referred may be said to have been the difference between the opinion of Sir John Hawkshaw's Committee, in which Mr. Parkes concurred, and the opinion of all persons or bodies in India who were interested in the harbour, or who had been officially or professionally consulted concerning it.

Among those who maintained an opinion favorable to an alteration in the site of the entrance were:—

- The Madras Committee of local professional gentlemen, which reported on the 30th June and 22nd September 1883.
- The Madras Chamber of Commerce.
- The professional advisers of the Government of India.*
- All Commanders of first class steamers using the port of Madras who had been consulted.
- The local Nautical authorities.
- The Madras Government:

* Mr. G. L. Molesworth.
Colonel H. A. Brownlow, R.E.
,, W. S. Trevor, R.E.

We are not in a position to know whether the opinion of the gentlemen who were members of Sir John Hawkshaw's Committee may have been in any way modified, but it is a fact that the experience of the last three years and the further discussions which have taken place have in no way altered the opinion of all competent authorities in this country. That opinion is steadfastly opposed to the retention of the eastern entrance, and generally, although not quite unanimously, in favor of a north-east entrance to the harbour.

5. The Government of India has hitherto refrained from the assertion of any very decided opinion on this question of the entrance. We think that the time has now come when our opinion may be advantageously expressed. The balance of evidence is strongly adverse to the eastern entrance, and it may well be deemed hardly politic or safe to compel the Madras Harbour Board to construct a harbour in a manner which is opposed by nearly all, if not by all, persons in India who are competent to judge of the matter, or who have interests at stake in the work. But we would add that the opposition of the Madras Government and of all Madras local authorities to the eastern entrance has our entire concurrence, and that we are convinced that no harbour at Madras, which is made with an eastern entrance, can be at all effective. We append a brief summary by our Consulting Engineer, Mr. Molesworth, of the opinions he has previously recorded on the subject.

6. We understand from the reports of Mr. Parkes and of Sir John Hawkshaw's Committee, that there is no engineering difficulty in constructing a north-east entrance. The committee, indeed, appear to admit that the question of the proper site for the entrance is more a nautical than an engineering one. The absolute unanimity of all commanders of steamers using the port, against the eastern entrance, must, we think, have great weight in this respect.

7. We would ask your Lordship to take this question of the position of the entrance again into consideration; for we are convinced that the matter cannot be set at rest until either our views and those of the other authorities in this country are accepted, or the views held by Sir J. Hawkshaw's Committee and Mr. Parkes have received the support of the highest nautical authorities. It would seem to be essential, in the latter case, that the opinion of those authorities should be given after they have fully satisfied themselves, by local investigation, concerning all the circumstances, and have shown good cause for setting aside the opinion of all the commanders of local experience who have been acquainted for many years past with the various conditions of the problem.

Memorandum by Mr. G. L. Molesworth, C.I.E., dated 9th May 1887.

No new engineering feature has been imported into the case since I wrote my notes of July 17th, 1883, and April 19th, 1884.

With regard to the engineering points at issue I may sum up my opinions as follows:—

1st.—It is impossible, with an eastern entrance, to exclude from the harbour waves of considerable magnitude, even should the entrance be narrowed to 450 feet.

2nd.—The adoption of a north-east or south-east entrance is the only mode of excluding such waves from the harbour.

3rd.—The north-east entrance appears to be preferable to the south-east entrance, because the north is less exposed than the south to encroachments from sand.

4th.—The re-entering curve proposed by the Madras Committee in the overlapping arm to the north-east elbow is open to serious objections, but I notice that Mr. Thorowgood, in his letter, dated January 31st, 1887, has submitted a sketch in which this is modified to meet the objection to a re-entering curve raised in my note of July 17th, 1883.

99 78/6

5th.—A prolongation of the present face of the harbour so as to avoid the necessity for this re-entering curve would throw the entrance 200 or 300 feet nearer to shoal water.

6th.—The alternative plan for forming a north-east entrance by the prolongation of the south-east face so as to overlap the present eastern entrance as suggested in my note of July 17th, 1883, would afford shelter to the harbour and would at the same time allow more sea room for vessels entering the harbour, but it would involve greater expense.

The feasibility of entering or leaving the harbour by the north-east is a question for nautical men to decide, and whether an entrance at the north-east elbow would allow sufficient sea room is also a nautical point on which I do not feel qualified to offer an opinion.

ORDER—dated 7th June 1887, No. 1517 W., Public Works.

Communicated to the Chairman, Madras Harbour Trust Board, with reference to G.O., No. 784 W., dated 14th March 1887.

(True Extract.)

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

To the Chairman, Madras Harbour Trust Board.
,, Marine Department.

Exd. A. Aubert.
Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of |1887| Madras.

PUBLIC WORKS.

Dated June, 7th.

Recd. *Encl.*

G.O., 7th June 1887, No. 1517 W.

JUNE.

Madras Harbour

Position of the entrance.—Copy of a despatch from the Government of India, to the Secretary of State, requesting reconsideration of the question of the —, communicated to the Chairman, Madras Harbour Trust Board.

2nd September 1887, No. 2358 W., Public Works.

89 28/16

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, to the Chief Secretary to Government, dated Madras, 22nd August 1887, No. 2741 :—

I have the honor to submit herewith, for the information of Government, copy of a letter No. 697, dated 6th August 1887, from the Acting Superintendent, Madras Harbour Works, reporting upon progress made during the month of July last.

2. I also forward extract of proceedings at the last meeting of the Board in reference thereto, and copy of resolution then passed.

3. I am requested to ask that, should you have received no communication from the Secretary of State in reference to the proposed north-east entrance, you will move Government to be good enough to telegraph the Government of India to inquire whether they have received any despatch on the subject, and if not, to again address the Secretary of State by wire, and point out to him the great loss of time and money which is being incurred while the decision of the Committee is awaited. Until this is received the whole staff has to be maintained, while work is practicable at an arm of the harbour only.

Enclosure.

From A. LEE-POGSON, Esq., Acting Superintendent, Madras Harbour Works, to the Chairman, Harbour Trust Board, dated Madras, 6th August 1887, No. 697.

I have the honor to submit the following brief report stating the progress made on these works during the month of July.

2. At sea I am sorry to say there was literally nothing done on account of the heavy ground swell causing the sea to wash over the pier during the greater part of the month, and I believe it is many years since the month of July has been so unfavorable for sub-marine work.

3. *North Pier Works.*—The north pier works have been in abeyance in accordance with G.O., No. 1898 W., dated 14th July 1887. Only three old superstructure blocks, recovered in June from the south pier, were dropped into the north pier wave-breaker on the 6th July; on which date the crane for this purpose was travelled home, there being no more wave-breaker blocks old enough to complete this work with.

4. I take this opportunity to point out, that on the receipt of orders to proceed with this pier, it will be quite a month before I can get the Titan crane to the end of the pier (either to pull up the built work, or proceed forward, whichever the case may be) as the required line of rails will have to be built in masonry and time allowed for it to harden, so, to avoid such a delay, I wish to know whether the Board can see any objection to this work being started at once, as the order is to suspend all work at this arm.

5. *South Pier Works Superstructure.*—No progress has been made at the south pier, owing to the heavy swell making it impossible for the divers to remain below, although on two occasions old blocks were raised, but no block-setting could be attempted.

6. *Rubble Base.*—At the south pier there were $1,491\frac{3}{4}$ tons of stone deposited from boats into the foreshore, the base in itself being completed as far as the submerged old Titan crane.

7. *Concrete Block-making.*—Block-making was carried on with fair regularity throughout the month, making an average of nine blocks a day. There were 226 blocks (representing 6,633 tons of concrete) turned out, of which 105 blocks are for the wave-breaker.

8. As I have run out of stone "crusher jaws," I beg that my present indent for others may be supplied as soon as possible, as I fear the present jaws will not last for more than two months.

9. *Palláveram quarries.*—The work at the quarries has been very slack on account of there being so little rubble required, consequently only twenty-seven trains ran during the month, bringing $5,559\frac{1}{2}$ tons of stone, of which $4,067\frac{3}{4}$ tons were chips for block-making.

10. *Pontoon for recovering old Titans.*—The pontoon has been able to work for a few days in the month when several blocks were grappled and placed in the wave-breaker, exposing a further portion of the old south pier Titan crane, which was removed to the south pier and raised to the surface by the present south pier Titan.

11. *Stores from England received on works.*—The following stores were received during July from England, consisting of 2,726 casks containing about 486¾ tons of Portland cement, with other articles by the ships named below :—

By the S.S. *Ganges* 500 casks of Portland cement.
„ S.S. *Quetta* 1,007 casks „ „
„ S.S. *Coramandel* 494 casks „ „
„ S.S. *India* 725 casks „ „ and 120 deal-wood planks.
„ S.S. *Goorkha* 8 wheel tyres.

Extract of Proceedings of the Harbour Trust Board, at a meeting held at the offices of the Board on Wednesday the 17th day of August 1887.

* * * *

4. Read letter No. 697, dated 6th August 1887, from the Acting Superintendent, Madras Harbour Works, submitting report of progress made on the Madras Harbour Works during the month of July 1887.

Read minutes by Captain J. H. Taylor, R. N. R., Messrs. W. J. Eales and G. L. Chambers, the Honorable S. R. Turnbull and Captain W. L. C. Baddeley R.E.

Resolution—

Resolved that the Government be requested to telegraph to the Government of India to inquire whether any orders have been received with regard to the north-east entrance, and if not, to request them to point out to the Secretary of State for India, by wire, the heavy loss of time and money arising from the stoppage of all work on the north arm. The Acting Superintendent's proposal to prepare a road for running out the Titan crane is approved.

* * * *

(True Extract.)

(Signed) C. PINSENT,
Secretary, Harbour Trust Board.

Transferred to the Public Works Department.

(By Order.)

Ootacamund,
26th August 1887.

(Signed) W. S. MEYER,
Assistant Secretary.

Order—dated 2nd September 1887, No. 2358 W., Public Works.

The progress report of the Madras Harbour Works for the month of July 1887 will be recorded.

2. With reference to paragraph 8 of the Acting Superintendent's letter, it is remarked that in Proceedings, dated 28th July 1887, No. 2026 W., the Secretary of State was requested, by telegraph, to supply four pairs of crusher jaws in anticipation of indent.

3. With advertence to paragraph 3 of the Chairman's letter, it is observed that the Secretary of State has already been requested (Proceedings, dated 1st July 1887, No. 1765 W.,) to telegraph to this Government as soon as the position of the Harbour entrance is definitely settled.

(True Extract.)

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

To the Chairman, Madras Harbour Trust Board.
„ Marine Department.
„ Consulting Engineer for Railways.
Exd. W. H. French.
Spare Copies

2978/[illegible]

CWG

Chairman
Harbour Trust Board.

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of {1887} Madras.

PUBLIC WORKS.

Dated September, 2nd.

Recd. *Encl.*

G.O., 2nd Sept. 1887, No. 2358 W.

SEPTEMBER.

Madras Harbour Works

Progress Report of the — for July 1887, recorded with remarks.

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

Harbour Trust Board Office,
MADRAS, 20 april 1887

No. 288. 89/78/18

FROM
The Hon: R. W. Barlow C. S.
CHAIRMAN, HARBOUR TRUST BOARD,
MADRAS,

TO
Colonel J. C. Hasted R. E.
~~Chief~~ SECRETARY TO GOVERNMENT,
Public Works ~~Marine~~ Department.
Chepauk.

SIR,

In reply to para 2 of G. O. No 1001 W dated 4 april 1887, I have the honour to submit for your information copy of a letter No 56 dated 18 april 1887, from the Superintendent Madras Harbour Works in reference to the proposed North East entrance to the Madras Harbour.

2. This letter will be laid before the Board at their next meeting, and their resolution will be communicated to you in due course.

I have the honour to be
Sir
Your most obedt. Servant
R W Barlow
Chairman
Harbour Trust Board.

C. Secy H. T. B.

cwe

No. 56

8978/19

From

The Superintendent
Madras Harbour Works

To

The Chairman
Harbour Trust Board

Madras April 18th 1887

Sir

With reference to the G. O No. 1001 W of April 4th 1887 forwarded with your letter No. 216 of April 18th 1887, I have the honor to state that without any direct orders as to details I am unable to alter my present arrangements as to the construction of this Harbour. I do not know - nor does your letter point out, the precise spot where a North East, entrance should be, and it is hardly necessary to state that until I receive detailed instructions on that head it is quite impossible to act with a view to a North East entrance.

2 As a matter of fact I have stopped — advancing on both piers, and am now protecting — what has been built - Perhaps during the "off" — month of May further instructions will be

be issued to me.

I have the honor to be
Sir
Your most obdt. Servant
(Sig) F. N. Thorowgood
Superintendent
Madras Harbour Works

(True Copy)

C. Vinsent
Secretary
Harbour Trust Board

cvg

L.1
P.N. 3062/87

9978/90

P.W.C. No 3062

MARINE DEPARTMENT.

From

THE CHAIRMAN,
Harbour Trust Board,
MADRAS,

To

The ~~Chief~~ Secretary to Government,
Public Works ~~Marine~~ Department.
Chepauk.

Dated 20th } April 1887
Received 21 }

Enclosure 1

No. 288

SUBJECT.

Submitting for the information of Government a letter from the Superintendent Madras Harbour Works in reference to the proposed entrance to the Madras Harbour.

Await receipt of Resolution
W.B.
23.4.87
D.S.

6.5.87

Extract of Proceedings of the **HARBOUR TRUST BOARD,** at a Meeting held at the offices of the Board on Friday the 22nd day of April 1887.

29 78/91

× × × ×

2. Read G.O. No 1001 W. Public Works dated 4th April 1887, (received 18th idem) communicating telegram from the Secretary of State for India dated London 29th March 1887, stating that the "question of "harbour entrance will be at once "reconsidered and referred to a "Committee here. Works should be "prosecuted with due regard to "possible change of plan. Keep me "informed of arrangements proposed "in view to this."

Read also Secretary's letter No 216 dated 18th April 1887, forwarding the same to the Superintendent Madras Harbour Works and his reply thereto, informing the Chairman that without any direct orders as to details he is unable to alter present arrangements as to construction, that he did not [illegible] on the [illegible] where a North East entrance should be, and that until he received such detailed instructions it is quite impossible to act with a view to such entrance, that he had stopped advancing the arms of the Harbour, and was now protecting what has been built, and suggesting that during the "off" months of May, further instructions should be issued.

Read minutes on the subject by Captain Baddeley R.E. The Honorable Mr Turnbull and Mr Eales.

Resolved that - assuming that a portion of the wall has to be removed - the Board desire to be informed whether the work now being carried on will in any way interfere with the proposed North East Entrance, and if so to what extent.

Resolved also that the Board are unanimously of opinion that the Trust should be represented upon the London Committee appointed to consider the question of the North East Entrance to the Harbour and that the Chairman be authorized to wire to Government suggesting that Captain Taylor should represent the Board and that the Proceedings of the Committee be stayed by telegraph pending his arrival in England.

× × × ×

(True Extract)

C Dinsent

Secretary
Harbour Trust Board

Enc 1
PW 3401/5

Y. & Co. H. T. No. 1

Harbour Trust Board Office,

MADRAS, 4th May 1887.

No. 498

2928/93

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.
Chepauk.

SIR,

Referring to my letter No 288 dated 28th April 1887, and in compliance with paragraph 2 there of, I have the honor to forward for your information copy of an Extract of Proceedings of the Harbour Trust Board at their meeting held on 22nd April 1887, and confirmed on the 29th idem, in reference to the proposed North East entrance to the Madras Harbour.

I have the honor to be
Sir
your most obedient Servt
R W Barlow
Chairman
Harbour Trust Board

9978/25

1.6.1011 W 4.4.87
" 784 & 785 W 14.3.87

3062 & 3403

B. No. 1316 W d/13 May 1887

Recorded in
Recorded
continuation
in continuation
of G.O. No. 1283 W.
of G.O. No. 1283 W.
dated 11th May 1887
dated 11th May 1887.

mw
9.5.87

* Proof copy in file

Joll
11/5/87

OII 12/5
11.5.87

Wr 12/5 JD 14/5

9.5.87

MARINE DEPARTMENT.

P.W.C. No. 3403

(3)

FROM

THE CHAIRMAN,

HARBOUR TRUST BOARD,

MADRAS,

To

THE ~~Chief~~ SECRETARY TO GOVERNMENT,

Public Works ~~Marine~~ Department.

Chepauk.

DATED 4th May 1887

RECEIVED 5th May 1887

ENCLOSURE 1

No. 498

Clr 3356

SUBJECT.

B. No. 1316 W d/13 May 1887

Forwarding for his information Copy of an Extract of Proceedings of the Harbour Trust Board at their meeting held on 22nd April 1887, in reference to the proposed North East Entrance to the Madras Harbour

DW
10

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16 DEC 87

P. W.

2070
1887.

Public Works Department.

9978
/83

Copy Telegram sent to the Governor, Madras

on the 27th October 1887.

Madras Harbour Committee recommend North East Entrance on plan III mentioned in your Public Works Letter No. 10 of 20th May, 1887. Despatch will follow.

Juland Danvers

Secretary in the Public
Works Department

India Office, London.
25th November, 1887.

Y 9063. 200.—11/85. I. 1934.

[illegible] 4693

/M

Telegram from the Secretary of State to the Governor of Madras / Madura dated 27th October 1887.

Madras Harbour works Committee recommend North East Entrance on plan three (x Momenia ...).

Your Public Works despatch 10 20th May last. A despatch on subject will follow.

x. Note This word is not in the Code

9978/96

~~Petition~~ Telegram from the Secretary of Stat

9978/87

Dated 27th October 1887.

p 2

Transferred to the Chief Secretary to Government for disposal.

(By Order.)

Private Secretary.

Governor's Camp,
~~Government House,~~
31st October 1887.

No 204 – 7–6–87
" 229 – 7–6–87
" 232 – 7–6–87
" 318 – 21–7–87 3 & 4 drawings
" 344 – 27–7–87
No 2978 W of 7th Nov/87

A – 3

Communicated to the Chairman Harbour Trust Board with reference to G.O. 1383 W dated 20th May 1887, and in continuation of G.O. 1898 W of 14 July 1887.

5/11/87

Chairman H. T. Board ✓
Marine Dept. ✓
S C
17/11/87
Despd 8–11–87.
Circ. 5–11–87 R. 7–11–87

CURRENT NO. 961

Marine (1887) DEPARTMENT.

Misc 889

From

THE PRIVATE SECRETARY
TO THE RIGHT HON. THE GOVERNOR,

To

THE CHIEF SECRETARY TO GOVERNMENT,
DEPARTMENT.

Dated 31st October 1887
Recd. 2 Nov

Recd 5/11/87

CHIEF SECRETARIAT 2 NOV 87

ENCLOSURE. 1

5 NOV 87
P.W. DEPARTMENT

Subject.

Transfers a ~~petition~~ telegram from the Secretary of State.

7th Nov/87

Transferred to the Public Works Department.

Ag. Chief Secy to Govt.

2978/98

Govt. of [1887] Madras.

PUBLIC WORKS.

10/11

Dated

Recd. Encl.

G.O., 7th Nov. 1887, No. 2978 W.

Madras Harbour.

Telegram from the Secy of State intimating that the Committee in England recommend North East Entrance for the ——

Commd. to the Chairman Harbour Trust Board

50/4

Jd 18/11

En 9/11