

Marine (1898) Department.

G.O., No. 881 Marine

DATED 17 Sept-1898.

IV

Vizagapatam Harbour. [Despatch Abstract.]

Memorandum from the Secy to Govt requesting
W. A. J. Mackenzie, Engineer, to proceed
to Vizagapatam as early as possible and prepare
plans & estimates for certain works in connection
with the improvement of the Harbour. Communicate
to the Port Officer, with remarks.

Dr.

Indexed.

22/9/98

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

CURRENT No.

Order

Communicated

to the Presidency Post office

who will afford Mr. Mackenzie

the information and assistance

asked for.

From The Public Works Department

1861

17.9.54

No. 3996 c.

R.S.

The P. P. O.

Dated 12. 9. 98

Dated 12. 1. 1958
Received 16. 5. 58

Enclosures

Spare copies -

SUBJECT.

Requesting Mr Mackenzie to proceed to Vizagapatam to prepare plan & estimate for certain works in connection with the improvement of the Vizagapatam Harbour & requesting the Port Office to afford Mr Mackenzie all the assistance in his power.

CAH after

FURTHER PAPERS.

No. 3996C.

No. 3990C.

1. The Port Officer will be responsible for the Marine Survey
ment to afford GOVERNMENT OF MADRAS, assistance in all matters
both in support PUBLIC WORKS DEPARTMENT.
soundings and other observations, and personally whenever his
other duties permit. MEMORANDUM.
disposed the port log book, and any other information avail-
dated Madras, 12th September 1898

Dated Madras, 12th September 1898

X about Vijayapatam harbor
not yet received from
Madras. other appliances Wit

With reference to G.O.No. *768*, dated *8th September*

1898. Mr. Mackenzie is requested to proceed to Vizagapatam as soon as possible and take up his residence there or at Waltair for one year. of the training will be provided to him, the following:-

2. His duties will be the following:-

(a) To prepare plan and estimate for the extension of the training wall on left side of river as proposed by the undersigned and referred to in para 3 of G.O. No. 768 Marine dated 8th September 1898.

(b) To prepare plan and estimate for the scouring sluices
proposed by the undersigned and referred to in para. 3
of G.O. No. 768^{Marine} dated 8th September 1898.

(c) To make observations of direction and force of tidal, littoral and other currents, winds, state of sea on bar and in roadstead, movement of sand in river mouth, bar and roadstead, river floods, and of all other matters which will tend to increase our knowledge of the prevailing meteorological and other conditions at Vizagapatam at different periods of the year.

3. He will be placed under the orders of the Superintending Engineer, I Circle, with whom he should consult, and from whom he should obtain instructions on all points of difficulty.

No. 3990

GOVERNMENT OF MADRAS.
PUBLIC WORKS DEPARTMENT.

MEMORANDUM.

Dated Madras, 12 September 1898

With reference to G.O. No. 708, dated 8 September 1898

1898 Mr. Mackenzie is requested to proceed to Visakhapatnam as soon as possible and take up his residence there or at Waltair for one year.

His duties will be the following:-

(a) To prepare plan and estimate for the extension of the existing wall on left side of river as proposed by the undersigned and referred to in para 3 of G.O. No. 1898.

708 dated 8 September 1898

(b) To prepare plan and estimate for the scouring sluices proposed by the undersigned and referred to in para 3 of G.O. No. 708 dated 8 September 1898.

(c) To make observations of direction and force of tidal, littoral and other currents, winds, state of sea on bar and in reaches, movement of sand in river mouth, bar and reaches, river floods, and of all other matters which will tend to increase our knowledge of the prevailing meteorological and other conditions at Visakhapatnam at different periods of the year.

He will be placed under the orders of the Superintending Engineer, I Circle, with whom he should obtain instructions on all points of difficulty.

4. The Port Officer will be requested in the Marine Department to afford Mr. Mackenzie all the assistance in his power, both in supplying boats and boatmen, appliances for taking soundings and other observations, and personally whenever his other duties permit. He will also place at Mr. Mackenzie's disposal the port log book, and any other information available of previous meteorological conditions.

5. If funds are required for boats and their crews and other appliances an estimate should be submitted for sanction by competent authority.

6. With regard to the duties described in para 2 he should submit a section of the training wall he proposes to build, with reasons for adopting it, and the material of which it is composed, before proceeding to estimate for it: also a plan showing its proposed alignment.

7. Before estimating for the scouring sluices he should consider the best position for them. The place hitherto proposed is Turner's bridge of boats, but the undersigned gathers from Mr. Wheeler's books on the subject, that a scouring basin, to be successful, must be as close as possible to the bar to be scoured. A cross section near the mouth of the river has accordingly been taken lately to ascertain whether it is possible to build the sluices there. Observations have also been taken at Turner's bridge of the daily tidal ebb and flow with a view to determine the necessary capacity of the sluices. This cross section and these observations can be obtained from the Superintending Engineer, I Circle, and should be used as a guide by Mr. Mackenzie to determine the site and size of his sluices. If they are built near the mouth of the river it will be necessary to combine a lock with them, and the question will arise whether boats will be able to enter a

lock

1. The Port Officer will be requested to the Marine Department to afford Mr. Mackenzie all the assistance in his power, both in supplying boats and portmen, appliances for sounding and other observations, and personally whenever his other duties permit. He will also place at Mr. Mackenzie's disposal the port log book, and any other information available of previous meteorological conditions.

2. If funds are required for boats and their crews and other appliances an estimate should be submitted for sanction by competent authority.

3. With regard to the duties described in para 2 he should submit a section of the training wall as proposed to build, with reasons for adopting it, and the material of which it is composed, before proceeding to estimate for it: also a plan showing its proposed alignment.

4. Before submitting for the sounding sluices he should consider the best position for them. The place nearest to the bridge of boats, but the underground waters from Mr. Wheeler's dock on the subject, that a sounding basin to be successful, must be as close as possible to the bar to be sounded. A cross section near the mouth of the river has accordingly been taken lately to ascertain whether it is possible to build the sluices there. Observations have also been taken at Turner's bridge of the daily tidal ebb and flow with a view to determine the necessary capacity of the sluices. This cross section and these observations can be obtained from the Superintending Engineer, I Circle, and should be used as a guide by Mr. Mackenzie to determine the site and size of his sluices. If they are built near the mouth of the river it will be necessary to combine a lock with them, and the sluices will arise whether boats will be able to enter a

lock in the rough water which will certainly at times prevail in such a position. A plan of one proposed vent of the sluices should be submitted for approval with full explanation before proceeding further with the design. Probably Stoney's or Smart's shutters of wide span will be the best to use.

8. With regard to the observations the principal matters to be decided are

- (1) whence comes the sand or other material which forms the bar,
- (2) what is the principal factor in depositing it
- (3) - - - - - in removing it
- (4) whether, if the bar is removed or improved, any protection is necessary to the river mouth, to render its navigation easier, and if so whether Mr. Phorowgood's proposed groyne will effect such protection without producing any seriously evil effects or what other form of protection is preferable. For (1), (2) and (3) a series of careful soundings will be necessary at fixed points.

9. Before leaving Madras Mr. Mackenzie should carefully peruse the files relating to the subject, and take copies with him of any of the papers he pleases, treating as confidential those which have not been published.

10. He should also provide himself with such of the requisite appliances for his observations as he is unlikely to be able to obtain in Vizagapatam.

(By Order)

A. K. M. S.

Deputy Chief Engineer.

Copy to

The Superintending Engineer, I Circle.

~~Presidency Port Officer~~

through the Marine Department.