

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

6th October 1881, No. 2454 W.

Buildings and Roads.
Civil Works.

Read the following papers :—

No. 27.

No. 263.

MEMORANDUM BY CHIEF ENGINEER.

Letter from the Master Attendant, Administrative Department, Madras, No. 6,000, dated 5th July 1881, forwarding copies of a letter and estimates for making borings across the Island of Ramesvaram received from the Port Officer at Pamban with a sketch.

FORWARDED to the Superintending Engineer, Third Circle, with reference to G.O., No. 1341 W., dated 28th May 1881, and with a request that he will make the requisite arrangements for boring the section taken by Captain Baker, and sinking test wells on the line indicated, in the month of October or such other time as may be most convenient to that officer, under whose supervision the work will be carried out.

2. The Superintending Engineer can allot such funds as may be needed from Provincial, reporting to this office the sum appropriated.

3. The requisite tools and instruments should also be supplied by the Superintending Engineer.

(Signed) R. H. SANKEY, Colonel, R.E.,
Chief Engineer, P.W.D.

To the Superintending Engineer, Third Circle with original enclosures.

No. 264.

COPY of the above forwarded to the Master Attendant, Madras, with a request that he will be so good as to state what he would propose as Captain Baker's remuneration while engaged on the work.

(Signed) R. H. SANKEY, Colonel, R.E.,
Chief Engineer, P.W.D.

10th July 1881.

To the Master Attendant, Madras.

No. 27-A. From J. H. TAYLOR, Esq., Lieutenant, R.N.R., Master Attendant, Administrative Department, to the Chief Engineer, Public Works Department, dated Madras, 16th July 1881, No. 6,384.

WITH reference to your No. 264, dated 11th instant, I have the honor to state that Mr. Baker will return from leave early in October, when further inquiries will be made and a report submitted to you.

No. 27-B. Endorsement of the Chief Secretary to Government in the Marine Department, dated 26th September 1881, No. 1602.

From J. H. TAYLOR, Esq., Lieutenant, R.N.R., Master Attendant, Administrative Department, to the Chief Secretary to Government, Marine Department, dated Madras, 19th September 1881, No. 8157.

I HAVE the honor to forward with this letter a chart of the Island of Ceylon and the adjacent shores of Madura, Tinnevely, and Tanjore. The whole is intended to illustrate the various tracks that would be taken by steamers in the event of a canal being opened through Ramesvaram. It seems to me highly desirable that Government should be in possession of reliable evidence upon the various points of comparison offered by the present routes and the proposed alterations. I would respectfully recommend, therefore, that some copies of this letter and chart should be struck off and sent to accompany all letters passing through the hands of Government bearing upon this important subject—important, I mean, with reference to the very large sum of money involved in the construction of a canal through Pámban, and the many difficulties which will necessarily be encountered.

2. In the first place the more eastern ports, such as Brisbane and other ports of Queensland, whose new line of mail steamers might wish to call at Galle or Colombo for coal, could not use the canal without loss of time and mileage, and to this class must be added all the Straits, China, and Japan shipping, which, whether calling at Ceylon for coals or not, would lose both in time, distance, and expense by passing through the canal. We next come to Moulmein and Rangoon, the direct passages to which from the meridian of Cape Comorin, through the canal, and round the island, are nearly equal, so nearly so as to render the delay and expense of the canal an entirely extra charge, while if they coaled at Galle or Colombo, as nearly all ships do, the scale is turned very largely in favor of the outer passage.

3. It is not, therefore, until we come to Calcutta that any positive comparison can be offered, or any advantage suggested, and even then it will be at once recognized that the promised gain in distance was much exaggerated in the reports formerly written upon the subject, in which the gain is placed at 350 miles or one and a half days.

4. The chart supposes the various vessels to pass from Aden to the meridian of Cape Comorin, crossing it in the most convenient latitudes for their several objects. Thus A red dotted line is a steamer bound to Calcutta, touching at Colombo for cargo, passengers and coal, and then passing through the canal to a convenient point off Calimere A'. B red dotted line also is a similar ship passing from Colombo round the south of the island until she reaches an equally convenient point on the radius of distance from Sandheads B'.

Red dotted line A from meridian of Comorin to Colombo	...	...	135	} difference 94,
from Colombo through Canal A'	...	...	226	
Red dotted line B to Colombo and round Island to B'	...	...	135	} difference 94,
	...	...	320	
			455	

or, say, nine hours ordinary steaming at a ton of coal an hour. The average price of coal for outward and homeward voyages combined, we may call Rs. (20) twenty a ton, saving Rs. (180) one hundred and eighty, against which stand the expense, delay, and risk of the canal, its approaches and passages.

5. In the very rare case of steamers bound to Calcutta passing Ceylon without calling at any of its ports, the difference would be—

Red line C through Canal C'	...	...	220	} difference 190.
Red line D round Island D'	...	...	410	

6. The delay caused by the passage of the canal, the moderate speed necessary to render the approach to it safe, and the risk from the shoals about Point Pedro has to be set against, say, twenty hours ordinary steaming, and expense of about (400) four hundred rupees for coal.

7. The case of Madras comes next, and the canal certainly shows on it to greater advantage—

Blue dotted line.	{ E to Colombo	...	135	} difference 167,
	{ E Colombo through Canal to E'	...	226	
Blue dotted line.	{ F to Colombo	...	135	} difference 167,
	{ F Colombo round Island F'	...	393	
			528	

or sixteen hours steaming, or Rs. (320) three hundred and twenty for coal.

8. It seems hardly possible that the passage of the canal can be made without considerable delay, often involving a whole night, and great expense, so that even in this case it does not offer much mercantile advantage, if any.

9. In the very unusual case of a vessel requiring to reach Madras by a direct passage, without calling at any Ceylon port, the comparison would be—

Blue line G through Canal to G'	...	...	226	} difference 264,
Blue line H round Island H'	...	...	490	

little more than one day at ordinary steaming, and not taking in account the delays or risks of the canal.

10. It will thus be seen that the advantages of the canal do not press much upon the consideration of either the Imperial or Local Governments, and the selection of Colombo as a site for a harbour and calling place for all classes of ships has altered the conditions under which Colonel Sir Authur Cotton and other writers presented the subject to former Governments. The choice of a cut through Ramesvaram, which seems now decided by a consensus of opinion, deprives Madras of one of its chief reasons for direct interference, as it does not offer or render convenient the construction of a harbour for Southern India, such as was proposed by the Lorne Harbour and the canal through the Ramnad Peninsula. The rapid growth of the coral, which is a principal feature at what would be the mouth of the Lorne Harbour, is a most serious obstacle, as it also forms a difficulty in keeping the present pass open. The navigation of a canal will always be difficult in the strength of the monsoon or, say, six months in every year. The current would have to be shut out by locks, for no ship could run through a canal with a gale of wind and current behind her, the wind will be trial enough, and the large tract of shoal water will require many lighthouses. I cannot believe it will ever be a popular passage. It will certainly have the effect of destroying the large native trade that now uses the Pámban Pass, and that is a serious consideration. The rates and dues charged upon the few steamers that would use it would have to be very heavy, if any re-imbursement of the outlay is intended.

TRANSFERRED to the Public Works Department.

(Signed) R. DAVIDSON,
Chief Secretary.

No. 28.

ORDER THEREON, 6th October 1881, No. 2454 W.

THE Honorable the Governor in Council considers that it will be useful to have the purely nautical points connected with the proposed ship canal for Pámban discussed at an early date by the best available experts, but the subject can be best considered when the Government are in possession of the survey and trial borings to be undertaken by Captain Baker in accordance with G.O., No. 1341 W., dated 23rd May 1881, and a rough estimate of the probable cost.

2. Captain Baker will be requested by the Master Attendant to give such information as he may be able to gather from the present clearances of the existing pass channel, both as to the rate of growth of the coral, quantity to be removed annually, and the probable cost of such removal for the proposed canal.

3. When complete information has thus been collected and considered the whole question can be laid before the Government of India for final decision.
4. The chart submitted by the Master Attendant will be lithographed.

(True Extract.)

(Signed) R. H. SANKEY, Col., R.E.,
Secretary. to Government.

To the Marine Department.
,, Master Attendant. *Santh*
,, Superintending Engineer, Third Circle.

Exd. S. T. Austin.
Spare copies

★
BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of (1881) Madras.
PUBLIC WORKS.

To

THE MARINE DEPARTMENT,
&c., &c., &c.

Dated October, 6th.

Issued

Recd.

Encl.

G. O., 6th October 1881, No. 2454 W.

OCTOBER.

Nos. 27-28.

Proposed Ship Canal for Pamban.—Orders
on the subject of the —.

Pamban Marine Office
27th January 1882

No. 480

From

J. H. Baker Esquire
Post Office
Pamban

To

The Master Attendant
Administrative Department
Madras

Sir

With reference to Memo No. 539
dated 19th January 1882, I have the honor to
report that the boring apparatus did not
arrive here till the 4th instant. One hole has
been sunk on the south side of the Island
to a depth of 28 feet below mean sea level,
and another will be commenced Monday 30th
instant, about $\frac{1}{4}$ mile further inland, confor-
mably to the levels have been taken over $\frac{1}{4}$ miles of
ground connecting beach marks at proposed
mouth of Canal with Captain Baird's bench
mark at Tidal Observatory, which is 7.5 feet
above mean sea level. The level of the
country through which proposed canal is to

run etc are being carried out

I propose making a minute examination of the coral reef which surrounds the north entrance of proposed canal and will report carefully thereon; in the hole already sunk no rock was come upon; at a depth of 25 feet the strata consisted of very fine firm, bluish grey sand, to get through which I had to use the screw worm.

I have &c

(Signed) J. H. Baker
Post Office

(True copy)

J. H. Baker
Master Attendant
Administrative Department

So. 2454 W. 6. 10. 81

Ch. 172 of 14. 6. 81

Ch. 263-4 - 11. 7. 81

M
George R. 11/2

Administrative Department.

No. 1012

MADRAS,
Marine Office,

7th February 1882.

From

J. H. TAYLOR, Esq., LIUT., R.N.R.,

Master Attendant,
Administrative Department,
Madras,

To

Colonel R. H. Sankar R. C. C. B.

Chief Secretary to Government,
Public Works ~~Marine~~ Department,
Fort Saint George.

SIR,

With reference to G.O. No. 263, dated July 11th last, I have the honor to forward for the information of Government, copy of a letter from the Post Office, Ponnambur, No. 480, dated January 27th 1882, relative to borings and sinking of test wells ordered to be carried out. The further report promised will be forwarded on receipt.

I have the honor to be

Sir

Yours Most Obedt Servant

J. H. Taylor

Master Attendant
Administrative Department.

M

No 389 Waj 11th July 1882

From

P. N. C. No 865

THE MASTER ATTENDANT,

ADMINISTRATIVE DEPARTMENT,

Madras,

To

THE ~~CHIEF~~ SECY. TO GOVERNMENT,

P. N. MARINE DEPARTMENT,

Fort St. George.

Receaded.

Att

9/2/82

No. 1012.

Dated

Recd 78 } February 1882.

Received

No.

Subject.

Forwarded copy of letter
from the Port Officer
Pamban regarding
the boring and sinking
of wells.

No 389 Waj 11th July

With order
Entd. in Receipt Regr.

Car: 9/2 R. 11/2/82

11/2