

bundle no - 23. P. W. D. 1889

(1) பக்கங்களின் எண்ணிக்கை 104

(2) புதுக்கித் திருப்பிய நாள் 3/90

(3) ஆதாரங்குறிப்பவர் சுருக்கொப்பம்

தமிழ்நாடு ஆவணக் காப்பகம்.

தமிழ்நாடு அரசு

P. W. D. துறை

அரசாணை எண்.
மு. கோப்புத் தாள் எண்.

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அச்சகம்
பலவகை

நாள் :

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கலோ கண்டபடி கையாளவோ கூடாது

2. Sheets

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11TH OCTOBER 1889, No. 2852 W., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

READ—the following papers:—

From Lieutenant-Colonel A. C. SMITH, R.E., Superintending Engineer, VI Circle,
to the Chief Engineer, Public Works Department, dated Kodaikanal, 3rd
June 1889, No. 466 T.J.

With reference to your memorandum No. 2216 C., dated 6th instant, I have the
honor to submit a plan and an estimate, amounting to Rs. 1,600, for constructing quarters
for two light-keepers at Point Calimere, prepared in consultation with the Port Officer
at Negapatam.

No. 336 D.

Forwarded to the Marine Department for the approval and countersignature of
the Presidency Port Officer.

(Signed) R. R. E. DRAKE-BROCKMAN, Lt.-Col., R.E.,
15th June 1889. Ag. Joint Secy. to Govt., P.W.D.

No. 383 G.

Forwarded to the Presidency Port Officer.

(Signed) W. S. MEYER,
24th June 1889. Assistant Secretary.

G.O., dated 30th September 1889, No. 417, Marine.

Read—the following letter from the Presidency Port Officer, dated 3rd September 1889,
No. 615/375 G.

In my letter to Government, No. 350 G., dated 19th July 1888, I pointed out
that a light on Point Calimere was considered desirable, and recommended that it should
be placed on the tripod or column which the late Captain Taylor had proposed should
be erected on the Point as a land-mark.

2. Having corresponded with the Public Works Department on the subject of the
column, I have come to the conclusion that, as the erection of a tripod or even of a
masonry column would be a very expensive undertaking, a light iron mast capable of
bearing the weight of a sixth order light apparatus would meet the purpose. Such a
mast with a box or cabin for the light apparatus, I find, can be constructed at the
Indian Government Dockyard at Calcutta for about Rs. 600. This does not include
cost of freight or expenses connected with the erection at Calimere of the mast which
may be roughly taken at Rs. 1,000 in all—perhaps not so much—but it is impossible
at present to form a nearer estimate.

42

2852
52

3. In regard to the light I propose on the arrival of the new fourth order light from England, which has been ordered for Manapaud, to transfer the present sixth order light at that place to Calimere.

4. Huts for two light-keepers will be required, and the estimate for this work amounts to Rs. 1,600. I forward this estimate herewith and beg that the sanction of Government may be accorded as follows, viz:—

- (a) To the transfer of the sixth order light from Manapaud to Point Calimere.
- (b) To the construction at the Government Dockyard, Calcutta, of an iron mast for the same at a cost of Rs. 600.
- (c) To the construction of quarters for two light-keepers at a cost of Rs. 1,600.

Order—dated 30th September 1889, No. 417, Marine.

The Presidency Port Officer's proposals are approved.

(True Extract.)

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

ORDER—dated 11th October 1889, No. 2852 W., Public Works.

The estimate, amounting to Rs. 1,600, for constructing quarters for 2 light-house keepers at Point Calimere is returned to the Superintending Engineer, VI Circle, for sanction.

	RS.
Works	1,600
Establishment	368
Tools and plant	24
Total	1,992

2. The question of providing funds for the work, as shown in the margin, will be considered in the Financial Department.

(True Extract.)

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

To the Superintending Engineer, VI Circle,
with four enclosures.

- „ Examiner, Public Works Accounts.
- „ Financial Department.
- „ Marine „

Exd. J. Moses.
Spare Copies

43

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of {1889} Madras.

PUBLIC WORKS.

Dated October, 11th.

Recd.

Encl.

G.O., 11th Oct. 1889, No. 2852 W.

OCTOBER.

Quarters for Light-house
Keepers at Point Calimere

Estimate for — returned to the Super-
intending Engineer, VI Circle, for sanction,
the question of funds being considered in
the Financial Department.

2852
3
14TH APRIL 1887, Nos. 160, 161, MARINE.

GOVERNMENT OF MADRAS.

MARINE DEPARTMENT.

READ—the following papers:—

From J. H. TAYLOR, Esq., Lieutenant, R.N.R., Port Officer, Madras, to the
Chief Secretary to Government, dated Madras, 16th March 1887, No. 2276.

I have the honor to submit the following report on the ports and lighthouses
inspected by me in conjunction with the Chief Engineer, Public Works Department,
in January and February this year. I purpose taking up the ports in the order they
were visited, and therefore begin with—

Beypore.—Arrived here on 23rd January, and found the beach restored by the
operations of nature. There were 60 feet of sand below the revetment. The ruins on
the rocky islet are evidently those of a battery for defence of the river mouth in wars
of Tippoo's time.

The red light at this port is in good order; a better one would be desirable.

Left the same day by road, and arrived at *Calicut*. On the morning of the 24th
inspected the lighthouse, and found the prisms and lamps in good order. The column
wants scraping and painting, and chunam is required in several places. A lightning
conductor is wanted, the estimate for which is ready. The space round the lighthouse
requires fencing in; estimate and plan ready. It is considered advisable to have the
light-keeper's hut roofed with Calicut Mission tiles. The cost of carrying out the
foregoing recommendations will be about Rs. (1,000) one thousand.

The beach at Calicut has extended 200 feet seaward, but the depth of water at
the T end has not shallowed. The pier is in good order. The new road, regarding
which much correspondence took place between the Municipality and Port officer, has
been constructed, but is of very doubtful utility; the space between the two roads being
much lower than either, the interval will become a troublesome swamp in the rains.
Started the same day by the Steamer "Madras," and reached *Tellicherry*. Landed
and inspected the lighthouse and found everything right, but some paint was wanted.
This painting in all places on the West Coast should be done every year after the
monsoon.

The place suggested by the mercantile community for a jetty was examined.
There is no reason why this advantage should not be extended to Tellicherry, but as
the Port Dues Act does not contemplate such work from Port Funds, a small toll
must be levied on the trade to cover outlay, wear and tear, and sinking fund. Borings
must be taken to see whether screw piles or laterite carriage for the pier platform is
most desirable. The flagstaff wants painting.

Steamed on and arrived the same night at *Cannanore*. On the morning of the
25th, inspected the lighthouse and lamp, and found them in good order. Some paint
is wanted to the wood-work, and an iron rod hand-rail is required to be placed to the
ladder instead of the present rope.

The jetty is a strong, useful work for troops and passengers. It is not used by
the mercantile body, as being too far from the Custom House. The flagstaff wants
painting. The flags are in good order. A crane for the pier would be inconvenient,
taking up too much room, 13½ feet being the utmost roadway, but shears might be

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taking up too much room, 13½ feet being the utmost roadway, but shears might be

used instead, the greatest weight likely to be shipped being a horse in a horse box. Proceeded on to—

Mangalore and anchored at 7-30 P.M. At daylight on 26th landed at the Ullal mouth, and was agreeably surprised to find more water in the space leading to the Custom House than I have ever seen before. The boat, in which I landed, at low water came up to ten feet of the steps, whereas 200 feet of mud extended all along this portion of the port on my former visit. It seems as if nature was disposed to renew the former favorable conditions of Mangalore with reference to native coasters, without artificial assistance, and really I do not think any judgment of ours could direct engineering help in a direction likely to ensure permanent good effects. To project the two river mouths, and make a dock between them, would most certainly project the whole bar and sand action further out to sea, and make it worse than it is at present for the larger portion of the trade. I am satisfied that nature had better be left to herself for sometime longer.

Lighthouse—Everything connected with it and the lamps are in good order, but the same effect of the monsoon is observable as at other West Coast ports. A small sum should be sanctioned for painting, cleaning and repairing every year, the work to be carried out as soon as the wet season is over. The lightning conductor has to be looked after, but estimate is already prepared.

Left Mangalore on the same morning, and at noon on 27th was off Ponani. There were eleven large pattimars in the roads, and two laid up inside the river. At 5-30 anchored off the Government steps at—

Cochin, and went on shore. There were no ships in the inner harbour. Two sailing vessels were in the roads. On the 28th, at daylight, visited the Cruz Milagre gap. In spite of the various scares that reach Madras from time to time regarding this dam, it bears a quite unaltered appearance to my former visits, and looks as strong and satisfactory as could be wished. Some little adaptations suggested themselves to the Chief Engineer, and money and stone are ready to carry them out. The sand strip on the coast line, which confines the lagoon, is being planted with cocoanut trees and screw pine. The reclamations of land are going on with dangerous rapidity, owing to which the deep-water basin of the back-water is being much curtailed, and it will be very likely that nature will seek some other opening for the freshes to relieve Cochin, in which case, if it occurs near Alleppy, either naturally or by engineering assistance, the bar of Cochin will be raised, and its harbour facilities much reduced. The lighthouse and lamps are in good order.

The Government jetty has been renovated. The only things that can be improved are the boat-house to shelter the boats in the monsoon, which is sadly out of order, and a store-room constructed in the Marine office for oil and sundry stores. These two small works should be attended to.

Steamed out of Cochin at noon, and found 15 feet least depth on the bar, low water. Landed at—

Muttum at noon 29th, and found lighthouse and lamps and everything connected with it in good order. The roof of the new bungalow leaks in strong, windy rains, the rain being driven under the tiles. Attempts are in hand to remedy this. The sea being very smooth, no breakers were observable on the Crocodile rocks. The question of a red sector to indicate the exact line of direction from the light to the rock is under consideration, owing to the fact of a vessel having lately struck on the rock—the only instance on record, so far as I can discover. A special report on this subject is preparing.

Tuticorin.—Anchored at this port at 1 P.M. on 30th January. Inspected the Hare Island lighthouse and found everything satisfactory. Left for—

Pámban, steaming up to the Pámban light, which showed very dim and unsatisfactory, bearing north. On an inspection of the same, several small alterations as to the colour of the paint were made, and as it seemed to me that the light was not exactly in the plane of the prism, I caused an inch-and-a-half to be cut off the block on which the lamp stands. On leaving Pámban, a very marked improvement was observed in the light, probably owing partly to this alteration and the fact of

our presence and the extra attention it compelled. The Port officer is directed to furnish reports on this light, and take great pains to secure the keeper's attention. The column is in good order.

At day-break on 31st steamed through the Pámban passage. I pointed out to the Chief Engineer the shoal line, $3\frac{3}{4}$ to $3\frac{1}{2}$, from Shingle islet to the main body of the island. This must be canalised; a mere passage dredged through the sand would soon be filled up again, owing to the strong currents charged heavily with sand. On landing at Pámban, we visited the trial pits ordered by the Madras Government some years ago, and thence to Rámesvaram. It is worthy of mention in connection with the new canal that Mr. Lindsly, who recently inspected the situation, informed Mr. James, the Port officer, that a breakwater would be run between the Shingle islet and the obelisk. This, with any similar works, would seriously increase the tendency of the passage to silt up, and would necessitate some action of Government to compel attention to the Company's agreement not to injure the present pass.

Point Calimere.—At daybreak on 1st February, passed between it and the great reef which extends from this to 30 miles below Point Pedro. We carried less than 3 fathoms water in the passage, but possibly to the eastward a foot or two more might be found. It is reasonable to suppose that the new Canal Company may contemplate placing a light here, and making a passage of a canal or a dredged pass out and in from Palk's Bay and the open sea. This will be a work of which it is impossible to overrate the difficulties; they are more of a technical marine nature than a simple engineering action. If a canal is formed, the sand-laden currents will at some seasons run up and down it, and bars form at either end. If a dredged passage only is attempted, it will soon silt up.

If the passage is set aside on account of these difficulties, the only other which can be relied on will be 30 miles south of Point Pedro, which will increase the distance from Colombo to one even greater than round the Basses and Dondra head. I note that the Company profess to have received reliable opinions from P. and O. captains and B. I. S. N. officers, and a very favorable one from Sir John Coode, but neither that eminent engineer nor the officers in question have visited the spot, and have only a chart of great antiquity to guide them. I cannot accept their confidence. The simple cut through Rámesvaram island is easy, but maritime dangers, delay and expense attend all the other features of the design.

Negapatam.—Arrived here on 1st February, and inspected the lighthouse and lamps, all in good order. There is no plan for river improvement ripe yet for professional judgment. The dredge is not ready. The return from Cocanada of Mr. Cockburn, the officer sent from England to look after the dredges, is awaited. Left this port, and, passing Karikal, Nagore, Tranquebar, and Cuddalore, anchored off—

Pondicherry on 2nd February. Inspected the lighthouse, which is now fitted with a new French light, which is certainly very superior to our 4th-order class, and which the Port officer told me only cost (134) one hundred and thirty-four pounds sterling—a startling difference between Chance Brothers and the French. Started from that port on the same morning, and after half-an-hour steaming, the after-boiler leaked very badly; in fact, the water soon ran out, and fires had to be drawn instantly. The vessel went on very fairly with one boiler, and arrived at 10 P.M. at—

Madras.—Mr. Massey went on board, and carefully inspected the boilers, &c. He found the combustion chamber badly burnt, two holes in one plate, and evident signs of former repairs to it, of which I have never heard, and which must have been made before the purchase of the boat by the Secretary of State. This present injury has been caused by carelessness on the part of some one of the engineers who have had charge of her. Such repairs could never have been executed since the boat has been in my hands, and no bills for such work have ever come in. Ten or twelve days the least that can be reckoned on for repair.

Owing to the break-down of the Steamer "Madras," an agreement was made with the British India Steam Navigation Company for passages being provided for the inspection party by their steamers to the Northern ports and back to Madras for a lump sum of Rs. (5,000) five thousand. Left Madras by the Steamer *Asia* on the 10th

February, and passed the *Pulicat* lighthouse, which was seen very clear, no casuarina being near, and anchored at—

Masulipatam on the 11th February. The Port officer did not call on board, and the vessel proceeded on her voyage at 5 P.M. At daylight on 12th February anchored at—

Cocanada.—Mr. Baker, the Port officer, met us in the S. S. "Arthur Cotton," and we went to Vakalapudi, landing at that place in a fishing boat. The lighthouse was inspected, and found in good order. The lightkeepers' huts want renewing. Four iron lightning conductors should be removed, a copper one being substituted.

Steamed in to Cocanada. The Marine Villa was found in very good order, except the roof leaks, which have not been attended to yet. The shears are repaired, and quite equal to taking boilers out of the Steamer "Madras." It was found that the committee of the groyne improvement works have grown weary of the tedious nature of the same, and wish it stopped and dredging substituted, replacing the work in the Port officer's hands. I hope on return to see the Collector and have a meeting of the committee to interview the Chief Engineer. There were only three feet on bar at low water. It seemed a general opinion that the silting over the Bay has stopped. Mr. Baker, the Port officer, was anxious for an anchoring buoy, but the experience at Masulipatam, Calicut, and elsewhere goes to show that captains will anchor at their own will without reference to directions. It was noticed that ships were taking in cargo till 11 P.M.

Vakalapudi light was seen very brilliant, and the Hope Island light was also quite up to other 4th-order lights.

Vizagapatam.—Arrived at daylight on 13th February. There were 9 feet of water on the bar. Proceeded on, and reached the same day—

Bimlipatam, and found nothing changed about the place. The groyne is finished and offers some protection to the cargo boats, but does not fix the mouth of the river. This failure I now find to be owing to bunds placed at intervals up the river to suit the convenience of irrigation for the different land-owners on the banks, whereby all freshes are stopped and port improvement rendered impossible. Weighed at 6 P.M., and the moment the ship was out of the Bay saw the new—

Santopilly light very clear and bright.

Gopalpur.—Arrived here at daylight on 14th February, and landed at the new pier. The works were found well done, but depart in many particulars from my design, and much time and money wasted in consequence. The platform of the pier is 22' 8" above the sea, being six feet higher than the pier at Madras itself, the pier at Pondicherry, which this was intended to imitate closely, being 14' above mean sea level. The effect of this change will be to double all hand work at the pier, and seriously diminish its utility, while at the same time much expense is added, as the original piles have all been lengthened by cutting pieces from others—an operation which also weakens the resistance of the whole platform to wind and weather.

The Custom-house and Port officer's quarters were not commenced yet. The conclusion was arrived at that the plan to construct a joint Custom-house with a Port officer's house as upper story is a mistake. The adoption of a marina will allow the question of the size, &c., of the Custom-house to be deferred, but the Port officer's house must be constructed, and inquiries were made resulting in the fact that on the opposite side of the road looking upon the pier, and perfectly eligible as a site for building, a plot of ground can be acquired at small cost. I shall recommend Government to build the Port officer's house there as speedily as possible on the original grant of Rs. (5,000) five thousand. This will cheapen the building for revenue purposes, and leave the Marine Department independent.

Return Voyage by British India Steam Navigation Steamer "Patna."

Calingapatam.—Arrived here on 16th February. The question of rebuilding the Customs shed does not enter into marine consideration.

The light on the obelisk is good, but the ladder up to it is dangerous, and one that in bad weather the keepers, I am sure, will never attempt, so that danger of the

light being neglected is almost certain. This ladder must be replaced by a wood or iron one, rigid throughout, with hand-rail, no ropes to be employed.

From this port we passed on to—

Santopilly, arriving there on the same day, and proceeded to the lighthouse. Inspected the light-room and prisms. It is a very fine and efficient second-order light, but many glasses of the chamber are broken, to replace which others have been indented for to England. The superintendent and his assistant are evidently unequal to the care of such an important machine, and are on bad terms with one another. The condition of the house and surroundings is not what it should be.

Cocanada.—Arrived here on the 17th February and visited the—

Hope Island Light-house.—The journey was partly effected in the Steamer "Arthur Cotton," and the rest by canoes through mud and jungle. The lighthouse and light were found in good order. Some slight repairs are required, paint, &c. One lamp was brought away for inspection by Mr. Orr at Madras. Returned on 18th February to Cocanada, and interviewed the Groyne Committee. These gentlemen have found out after another year's experience that my views and observations were correct. They are now most anxious to give up the Department Public Works' overseership, and replace affairs in the Port officer's hands, to which, as the Collector will be permanent Chairman, and no offensive action can be adopted in future, I have no objection to offer.

Masulipatam.—Arrived at this port on 19th February, but too late to go to Point Divi. We called to see the Collector, Mr. Sewell, and discussed various matters relating to the port, the tidal creek, &c. The creek wants clearing out; head of water in canal above the lock is four feet higher than the creek. Proceeded on 20th February to—

Point Divi Lighthouse, having worked a tedious way through mud and creeks. The lighthouse and lamps were found on the whole satisfactory. It is a dreary place. The present superintendent has been 22 years here, and has no wish to move. Weighed and proceeded on to—

Arneghon.—Reached this place at 8 A.M., and, as no preparations were made for landing, went close in in ship's gig, then took fishing boat for the surf. Ship's boat leaking very badly was kept afloat by baling. The lighthouse presented a curious appearance, the cement, paint, &c., being scaled off the walls, and in many places only the bare bricks being visible. The wind in the November cyclone must have been very strong. No such effects have been seen in Madras, and a similar wind and sea would have inflicted severe damage, if they had come in our town. New lines are being constructed for the lightkeepers. Light room wants painting and keeping clean. The general apathy observable among all our Eurasian light superintendents was shown here. They will do nothing for their own comfort, or make any effort to save and preserve Government property. Their one idea is, as soon as things have reached a certain point, to report defects, and have estimates for repairs drawn up by District Engineers. Re-embarked, and at 5 P.M. reached—

Madras.—Captain Pearson, of the British India Steam Navigation Steamer "Patna," the vessel placed at our disposal by the British India Steam Navigation Company, to whom we are indebted for much kindness and attention, brought his ship through the southern passage from what is called Blackwood's harbour in a very seamanlike and satisfactory way by use of lead, there being no marks whatever for guidance, and the only survey chart 64 years old.

Wednesday, 9th, inspected *Pulicat* with Colonel Hasted. Column did not suffer in the cyclone equally with Arneghon, owing to the wind being off-shore, and the plaster on that side not having been exposed to the action of the sea air. Paint wanted in the light room and gallery. Keeper's lines in good order. Superintendent's bungalow repaired. The roof of this bungalow had been much injured in the storm, and it was proposed to terrace the upper part of it to give additional strength. Sanction was obtained for this work, but meanwhile the tile roof was repaired, so that there is no occasion to move in the matter. Until a new occasion for repair arises, the sanction must be cancelled. The superintendent has been some time very ill, and it

is doubtful if he can ever resume duty, which is, meantime, being carried on by his brother on his responsibility. The plan, however, does not work well, and a permanent settlement will be placed before Government as soon as necessary forms are gone through. This completes the coast inspection.

Notes of Inspection by the Chief Engineer, Public Works Department, 22nd January to 3rd February 1887, and 10th to 21st February 1887.

Mangalore.—The lighthouse is in good order and only wants white-washing. The store-rooms at foot of column need a little repair. There is a lightning conductor of copper wire, which it was decided should be led into a nullah at a little distance where the ground would be moist. Conductor Lennon, who has been instructed in testing conductors, is to test this conductor and arrange for its proper earth connection. The lantern and lighthouse are very well kept and painted where necessary. Three of the glasses of the lighthouse were cracked long ago it is said, but the cracks have been mended with strips of lead, and do not interfere with the light.

Tellicherry.—In good order, but wood-work needs painting or tarring. On the West Coast all wood-work should be painted or tarred once a year. An estimate for a lightning conductor is under preparation; it can be led into an old well outside the ramparts. The peepul and banyan trees growing in the fort wall, in the immediate vicinity of the lighthouse, should be destroyed.

Cannanore.—In good order, but the ladder needs attention, and the rope used as a handrail should be replaced by a round iron rod. A lightning conductor should be attached to the flagstaff which is close alongside the pillar and much higher, and led down one of the wire stays and through an embrasure down to the sea.

Calicut.—In good order; the iron railings at top would be the better for a coat of paint. The pillar itself appears to have been painted over old plaster; it should be scraped and painted white. An estimate has been prepared for enclosing the ground round the lighthouse now in a filthy state and open to cattle, &c.; this should be sanctioned, and the lascars' shed, a wretched little thatched building, should be re-roofed with Calicut tiles, and then the surroundings of the lighthouse will be decent. Estimate for a lightning conductor, which is certainly wanted, is under preparation.

Cochin.—This lighthouse is in very good order and neatly kept. Lightning conductor has been tested and found deficient. An estimate will be submitted for carrying the copper rod down into moist soil, and making a proper earth connection. The groynes on the coast immediately round the lighthouse have been very little damaged, and sand has been accumulating between them. An estimate will be prepared for making up the noses where necessary and the southernmost groyne which has been most knocked about, but no lengthening of the groynes should be allowed, and they should be kept, as nearly as possible, all of one length from the shore line.

The landing stage and marine buildings are in good order, but the boat-shed wants improvement, the posts which support it being apparently decayed in the ground.

Cruz Milagre Gap.—There seems to be no reason for alarm with regard to the bank; a little of the revetment has subsided somewhat on the lagoon side, and this is to be made up with stone on the spot. Sections are now being taken, which will show where there has been any scour near the foot of bank, and then the ballast stone, which has been collected, should be thrown in to protect the toe of the bank. The planting of screw-pine and creepers has not been properly attended to by the watchman.

It would be well to make some arrangements whereby all ballast brought by ships to the port can be brought and stored as a reserve at the bank.

Muttum.—The only first-class light on the coast besides Madras. The building was constructed in 1882, and is very solid and in excellent order. Everything is well kept here, and the lighthouse and apparatus are scrupulously clean. The lightning conductor is led into a hollow where the ground is kept moist, but it should be tested when there is an opportunity. The dwelling-house is roofed with Mangalore tiles, and the Superintendent represented that in strong wind and rain, water gets under the tiles. The position is so exposed to the burst of the south-west monsoon that it

will be difficult to prevent this unless corrugated iron is placed under the tiles; but the Superintending Engineer will see what can be done to prevent the leakage, it would seem that the slope of the roof is too flat for these tiles.

Tuticorin Lighthouse on Hare Island.—The lighthouse is in excellent order, and the light good and well kept. The sandstone, of which the column is built throughout, has been slightly affected in places by the sea air, but at present this is of no consequence; if the evil extends, it may be necessary to plaster the column with Portland cement, but this will probably not be required for some years. The lightning conductor is said to have been tested some years ago; when opportunity offers it should be tested again; the island itself is so little above sea level that the conductor must be in moist soil. The buildings for the lighthouse attendants are small, but well kept and in good order, and seem to be all that is necessary.

Jetty.—Some complaints have been made regarding the depth of water at the landing place, and that the former lengthening of 250 feet is insufficient; but it appears that boats still unload between the head of the jetty and the shore, and it is very seldom that boats drawing 4 feet cannot get up to the pier head at low water, while a further lengthening of 250 feet would only give 6 inches more water at the head. Under these circumstances, it does not seem necessary to lengthen the jetty; it would, however, be a great convenience to traffic if it were widened, and this could easily be done, doubling the width from the head to the shore; it would then be advisable to carry the tramway to the pier head, and perhaps to lay down a double line of rails.

Pamban Lighthouse.—The column appears to be sound and in good order, but much discolored; it should be scraped and painted with white anticorrosive paint. The light, a 4th order dioptric light, does not compare favorably with other lights of the same class on the coast. For some unexplained reason the glass lantern is fixed on the level of the platform, without the iron light-room, which has been sent out and is in use in other places; and it may be due to the light having so nearly below it a wide platform, painted white, that some of the light is absorbed, and it is very awkward for the men who attend on the light, as there is hardly head room for any one to stand up inside the lantern. It seemed doubtful also whether the flame of the lamp was immediately in the centre of the lenses, and at Captain Taylor's suggestion it was lowered, and this seemed to have a good result, as on leaving the port at night we could easily discern the light at a distance of 12 to 14 miles, measuring our distance by the logline. I would, however, paint the platform a darker color, which I understand can be done on the spot. If complaints of the light then continue, I would raise the lantern on a wooden octagonal light-room, about 3 feet high, securely bolted down to the head of the column; this would not be very expensive and would be much lighter than the ordinary cast-iron light-room, which may have been omitted from there being some doubt of the fitness of the column to carry so heavy a weight.

The buildings at foot of the lighthouse are in good order. The shoal below has accumulated, and dredging seems to be very necessary there. The Pass itself is understood to be clear, but the shoal below has accumulated, and dredging seems to be very necessary there. Nothing is known in this department about the reference made to the Secretary of State for a suitable dredger, and it may be that, in the face of the proposal to cut a ship canal through the Rameswaram island, a dredger may be considered unnecessary; but in the proposed agreement between the Company to be formed for cutting the canal and the Secretary of State, it is specially provided that the Pamban Pass shall not be interfered with, and as the canal cannot be available for some years, even if country craft will ever use it, it seems very desirable that a dredger should be obtained as early as possible. Speculation on the prospects of the canal seems unnecessary; but after examining the ground on the proposed line of the canal and studying the charts, the conclusion arrived at was that the canal itself with immediate approaches is feasible if sufficient money is spent, but that the real difficulty will be found in the shoals lying between Point Calimere and the island of Ceylon through which it seems almost impracticable to keep open a passage of sufficient depth to enable large vessels to navigate.

Point Calimere.—The pillar at the point partly fell down some time since, and it looks as if the portion remaining were leaning over. It seems advisable, as it is

supposed that a landmark here is necessary, to estimate for a tripod of iron screw piles here.

Negapatam Lighthouse.—The column seems to be in good order and does not require painting at present, but the lighthouse, lantern and outside platform and rails are sadly in want of a coat of paint. It was stated that the building had been lately struck by lightning although provided with a lightning conductor, and in proof of that 3 panes of glass, a good deal cracked, were shown; it is difficult to understand how this occurred, though it seems possible that sudden very great heating of the metal-frames might have caused expansion and cracked the glass; the discharge, however, must have been carried off by the conductor, as there is no trace of damage to the column.

The buildings at foot of the lighthouse are in need of repairs; the masonry is being eaten away by the sea air; it should be thoroughly scraped and cleaned and then plastered with Portland cement. Nothing else will stand so near the sea.

Jetty.—The jetty up to the landing ramp has been repaired since it was damaged by the last storm, but nothing has been done towards filling up the boat basin. An estimate should now be submitted for removing the concrete blocks with which the basin is lined, and filling it with soil which may be procured from a large bank in the creek just above the basin opposite to the Railway premises; the estimate should also provide for building a face wall to the creek similar to the one below the boat basin, so far as Government land extends, using the material taken from the basin as far as possible. Captain Taylor's proposal to extend this face wall along the Railway premises seems a good one, but it is understood the Railway authorities object to this. An officer having been placed at the disposal of the Negapatam Municipality to draw up a scheme for water-supply and drainage, it is hoped that his proposals will enable the vexed question of the discharge of the town drainage into the sea clear of the jetty, may shortly be settled. At present it must apparently all flow down the ramp used for landing cargo—a very objectionable arrangement.

Madras Lighthouse.—The outside of the column, at all events near the top, requires pointing in places with Portland cement, and the inside of the well requires plaster renewed in places where it is crumbling away from the action of the sea air.

The apertures, which give light to the stairs, are intended to be closed by glass windows during strong winds, but these windows are very much out of repair, glasses and sometimes frames broken and hooks rusted almost through; they should be properly repaired and furnished with brass hooks and eyes. The iron supports to the handrail are in places a good deal corroded; they might be painted with advantage.

The lantern and light-room are in good order, and painted once a year. Lightning conductor is said to have been tested about a year ago.

The outside gallery at the top is dangerous, owing to the parapet being only about 2 feet high; it should certainly be made safe to visitors by a stout double rail on standards all round.

The store-rooms at foot of the lighthouse are in need of repair; it is stated that the roofs leak, and they have been thickly covered with tar all over. If the joists are sound, it will probably be the best way to remove all this tar and old plaster and replaster throughout with Portland cement. Several glasses are broken in the skylights which need renewal, and a little repair to inside walls is necessary.

Pulicat Lighthouse.—Column in good order; on a high ridge of sand much above the storm-wave of the 9th November last, which was recorded at Coromandel as more than 8 feet above H. W. spring tides. The casuarina trees here are all bent to the east, quite the contrary direction to which they were bent at Armeghon, 30 miles higher up the coast, showing that the centre of the storm hit the coast between these two points. The lightning conductor was bent and some of the lightning rods bent. The column requires coloring again, and the lantern should be painted both inside and out; all shutters to the loopholes should be repaired. The building at foot is also needed, and the roof should be replaced, and now requires nothing but some plastering and white-washing inside. The lascars' quarters are new and good.

The sea-wave in the late cyclone seems to have destroyed the good-water supply in Pulicat, and the inhabitants are said to send across the backwater to the wells near the lighthouse for drinking water.

Armeghon Lighthouse.—The cyclone of November 1886 was felt with great severity, as is evidenced by the trees in the neighbourhood. The sea flowed over the sands, and rose to a height of about one foot on the steps of the lighthouse and dwelling-house. The plaster of the column was much damaged. It is understood that an estimate has been prepared for replastering, and no time should be lost in carrying out this work. The lantern and lighthouse, with railings outside, only require repainting, and white paint would be the best to use now. The light is good and the lenses in good order, but the place might be kept cleaner. The Superintendent's house suffered New houses are being built for the lascars. The verandah tiles have been displaced comparatively little in the cyclone, but some of the verandah tiles have been displaced and require to be renewed.

Point Divi Lighthouse.—The column and adjacent dwelling-house seem in good order; the light is good and the lantern and light-room only want repainting; if the inside of the latter were painted white, any dirt would be noticeable and could at once be removed. The wall built round the end of the lightning conductor at foot of the tower has cracked very considerably in consequence of its having been built partly on the column foundations and partly on surrounding platform.

If it is considered necessary to increase the accommodation in the Superintendent's house, one or two such rooms can be built on the terrace of the upper storey; but the lower storey might be made use of to increase the accommodation if space were economised.

The good-water tank has a good supply, but the water is fouled by buffaloes, &c., which are turned out by the villagers in the mangrove jungles. Some sort of fence is necessary to protect it, and this might be made roughly of the mangrove wood itself.

It was represented that the river had of late years cut away the ground towards the lighthouse, and there are signs of some erosion having taken place years ago; but from sections which have lately been taken, it appears that there is a good sloping fore-shore, and no erosion is now taking place. To prevent future erosion, it would be well to plant up with mangrove this foreshore from the creek above the lighthouse to the creek below.

Hope Island Lighthouse.—The column is in good order, and though in the high tide which accompanied the storm of last year the sea is said to have surrounded the lighthouse, no damage was done, and there is no sign of any scour. The terraced godowns attached to the column need attention, as the joists supporting the terraces have been attacked by whiteants, and in one of them the ends of the joists have rotted away, leaving the roof unsupported; these should be supported at once by a beam or plank held up by stout posts, and an estimate should be prepared for making both roofs good. The lantern is in very good order, and the light showed well at sea, but the new lamps evidently want to be better arranged as regards the draft. It may be a question whether, as the light is not required at all on the land side, a catadioptric light would not show a better light at sea; but judging from the appearance of the light on a dark night, it did not seem that much improvement was required.

The lighthouse keeper's quarters need a little plastering and white-washing; the lascars' lines are very good here, and there is a good separate store-room.

Vakalapudi Lighthouse.—The column is in good order, but requires to be painted white. The light is the one formerly in use at Hope Island, and the lenses are much cracked; but this does not appear to affect the light, which shows well at sea. The machinery works fairly well and smoothly, and the light is well kept. There are four lightning conductors, the upper portion being of copper and the lower of iron rod, the iron has corroded to a great extent; it would be better to have one good copper rod or wire conductor instead.

The Lighthouse Superintendent's house is in need of repairs to the roof; the flat-tiles have in many places decayed and need renewal, and the pan-tiles should be turned, otherwise the bungalow seems in good order.

The lascars' sheds are only thatched round huts which need constant repair; it would be well to have tiled lines, something like our lock lascars' sheds. It is understood that an estimate for these is under preparation.

Santopilly Lighthouse.—A new 2nd order light put up last year; it shows very well to sea, the elevation being, so far as could be ascertained, about 180 feet above sea level; distance inland one mile. The building is on a small hill, and the front part of it has lately been somewhat lowered and built up with solid masonry to receive the new lantern, the back of the building being store-rooms. All of it seems to be in very good order. Several new glasses are required to the lantern, which it is understood are to be supplied, and the lenses have suffered somewhat before being put up, but not so as to affect the light. The general appearance of the lighthouse indicates that a better class of Superintendent is necessary to maintain a light of this description. There are two lightning conductors, and in the stores are several lengths of hollow copper rod intended for a conductor, but never put up. One good conductor would be sufficient for both lighthouse and building in rear; but it is unnecessary to disturb the present arrangement if the earth connections of the existing conductors are good; they should be tested, if this has not been lately done.

The Lighthouse Superintendent's house is in fair order, and needs nothing but ordinary repairs. The Assistant Superintendent's house is said to leak in several places, and part of the house is used as a cook-room, the consequence being that the building is extremely dirty. A small detached cook-room should be built near the house, and the rooms cleaned and white-washed. The lascars' sheds are of mud, thatched, and only require rethatching.

Calingapatam Lighthouse.—The column is in good order, but in the storm of last year the sea washed round it, and the Lighthouse Superintendent stated that he subsequently threw some stone, which was lying about, at the foot; there is, however, no sign of scour round the building. The light is a common lantern with two reflectors, which needs a little repair in places, and the roof, with wood and iron work, requires painting; behind the light some tatties have been tied up to afford a shelter to the lascar attending; but they are, of course, liable to be blown away in any storm, and it would be better to plank in a portion to afford shelter. The ladder of rope with wooden rungs and wire-rope handrails is in need of repair in places; it would be much better to have a wooden-step ladder starting from masonry steps of some height; lascars can hardly be expected to go up and down the present shaky ladder on a bad night.

The lascars' shed is of leaves on the sand, and in the storm was quite surrounded by water; there are three men, and two huts at least are wanted; the Lighthouse Superintendent suggested that pukka lean-to quarters might be constructed round the square base of the tower, and the suggestion seems a good one. An estimate might be prepared for this; there is no site near the lighthouse available for building the usual lines.

No. 1031-C.

MEMORANDUM.

Transferred to the Marine Department, with advertence to Proceedings in that department, No. 529, dated 3rd December 1884.

(Signed)

J. O. HASTED, Col., R.E.,
Secy. to Govt., P.W.D.

To the Marine Department, with notes.

ORDER—dated 14th April 1887, No. 160, Marine.

The recommendations of the Chief Engineer for the improvement of the Pámban light and the other suggestions made in the foregoing reports are approved. Steps should be taken to carry them out at an early date.

2. The remarks of the Chief Engineer, in regard to the Negapatam jetty and drainage scheme, will be communicated to the municipal council with reference to G.O., No. 706, dated 24th December 1886.

3. The attention of the Chief Engineer is drawn to G.O., No. 618, dated 11th November 1886, which was communicated to the Public Works Department, from which it will be observed that the supply of a dredger for Pámban has been suspended at the suggestion of the Port officer.

4. These reports should in future be accompanied, for convenience of reference, by a statement in the form printed on page 1 of G.O., 24th April 1886, No. 207, Marine, in which the condition and further requirements (if any) of each lighthouse should be concisely stated.

5. A copy of these proceedings will be forwarded to the Government of India with reference to the remarks made by the Port Officer, Madras, in connection with the Pámban Pass and the proposed Rámesvaram Canal.

(True Extract.)

H. E. STOKES,
Ag. Chief Secretary.

To the Port Officer, Madras.
" Public Works Department.

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Copy to the Government of India, Department of Finance and Commerce.

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Copy to the Government of India, Department of Finance and Commerce.

H. E. STOKES,
Ag. Chief Secretary.

Exd. T. O'Connor.

No 1301 Ind/12 May 1889

Communicated for
the information of Super-
tending Engineers concerned
and for the necessary action
with reference to para 1 of the
Marine Department order.

The attention of the
Chief Engineer will be drawn
to paras 3 & 4

(sd) J O H
In

C6 P. H. D

See 1. II. IV V & VI circle

Govt. of (1887) Madras.

MARINE.

Issued

Recd.

Encl.

G.O., &c., 14th April 1887,
Nos. 160, 161.

APRIL.

Lighthouses and Ports.

Passing orders on the inspection reports of —
submitted by the Port Officer and the Chief
Engineer.

2852
9
23RD OCTOBER 1888, No. 790, FINANCIAL.

GOVERNMENT OF MADRAS.

FINANCIAL DEPARTMENT.

READ—the following paper :—

From Captain H. A. STREET, Her Majesty's Indian Marine, Presidency Port
Officer, Madras, to the Chief Secretary to Government, dated Madras, 15th
September 1888, No. G-81.

I have the honor to submit the accompanying budget estimates of the Marine
department for the official year 1889-90.

- (a) { Budget estimates of Port Fund Receipts and Charges under Act XII of 1875.
Do. do. do. under Act III of 1883.
(Landing and Shipping Dues at Cocanada.)
Budget estimate of Provincial Receipts and Charges.
(b) Budget estimate of Marine Works.

2. The actuals of the year 1887-88 under Receipts and Charges of the above
heads have been found to agree with the figures in the books of the Accountant-
General as directed in paragraph 1 of G.O., No. 1641, Financial, dated 28th December
1885.

3. The estimated receipts for 1889-90 of Port Funds under Act XII of 1875 are
(Rs. 3,51,760) three lakhs fifty-one thousand seven hundred and sixty, and the
charges (Rs. 4,51,600) four lakhs fifty-one thousand and six hundred and, as compared
with the figures of the previous year, stand as follows :—

		Estimates.		Actuals.	
		RS.		RS.	
Receipts.	{ 1888-89	3,80,000	1885-86	3,99,894	
	{ 1889-90	3,51,760	1886-87	3,83,730	
			1887-88	3,95,652	
Charges.	{ 1888-89	5,67,000	1885-86	4,20,149	
	{ 1889-90	4,51,600	1886-87	4,16,399	
			1887-88	3,90,279	

4. The estimate of receipts is based with reference to the actuals of the past
three years, and the gradual falling off in receipts from the year 1885-86 is due to the
levy of port dues at reduced rates.

5. The estimated charges for the year 1889-90 show a decrease of Rs. 1,15,400,
due chiefly to the inclusion in the estimate for 1888-89 of the cost of a steamer from
England, the proposal to procure which is now given up; cost of a dredger for Pámban
which, it is believed, may not now be required at all; and also to charges on account
of tug Madras, which vessel has been sold lately. It should also be stated at the
same time that the main portion of the estimate for charges for the coming year
consists of a large provision being made for Public Works charges which amount to
Rs. 2,36,606. The total charges estimated for the year 1889-90, amounting to
Rs. 4,51,538, is set down as Rs. 4,51,600 in round numbers.

6. The variations in the items of receipts and charges are explained in the column
of explanatory remarks.

7. No provision for payment of contribution to the Madras Harbour Trust has
been made in the budget estimate of the coming year, as the question of the transfer
to the Harbour Trust of the balance which will remain to the credit of the Port of
Madras on the completion of the revision of Port fund accounts is now before Govern-
ment.

8. The budget estimate of receipts and charges of Port funds under Act III of 1883 (Landing and Shipping Dues at Cocanada), as compared with those of the year 1887-88, stand as follows:—

		Estimates.		Actuals.	
		RS.		RS.	
Receipts.	1888-89	..	10,000	1885-86	13,097
	1889-90	..	11,500	1886-87	8,311
Charges.	1888-89	..	11,000	1887-88	12,895
	1889-90	..	43,000	1885-86	13,202
				1886-87	7,573
				1887-88	9,999

9. The estimate of receipts and charges under this head are likewise based on the actuals of the past three years, and the average receipts, Rs. 11,434-5-8, and the average charges, Rs. 10,258, are set down in round numbers as Rs. 11,500 and Rs. 11,000, respectively. To this latter sum, Rs. 32,000, cost of a dredger and punts for the Cocanada groynes works sanctioned in G.O., No. 425, Marine, dated 31st August 1888, has been added, and the estimated charges shown as Rs. 43,000.

10. Passing on to the estimate of receipts and charges of the provincial portion of the budget, which consists chiefly of pilotage collections at Pámban and Cochin and charges connected therewith, as well as charges of the Agent for Government Consignments, the figures for the ensuing year as compared with the previous year stand as follows:—

Pilotage Receipts and Charges.

		Estimates.		Actuals.	
		RS.		RS.	
Receipts.	1888-89	..	3,000	1885-86	15,239
	1889-90	..	3,000	1886-87	15,435
Charges.	1888-89	..	2,900	1887-88	15,371
	1889-90	..	2,900	1885-86	16,323
				1886-87	4,506
				1887-88	2,712

11. The estimate of receipts under this head is based on the actuals of the past three years which amount to Rs. 15,000 in round numbers; and of this sum Rs. 3,000 only is shown as estimated receipts, a sum sufficient under this head to cover the estimated charges, which are Rs. 2,900 for the establishments at Pámban and Cochin. The remainder Rs. 12,000 has been carried to the credit of Port funds under G.O., No. 24, Financial, dated 6th January 1882, and shown as estimated receipts of "surplus pilotage collections at Pámban and Cochin."

12. The estimate for 1889-90, as framed, will stand as follows:—

Port Funds.

Act XII of 1875—		RS.	
Receipts	..	..	..
Charges	..	..	..
Act III of 1883—		..	3,51,760
Receipts	..	..	4,51,600
Charges	..	..	11,500
	..	..	43,000

Provincial.

Pilotage—			
Receipts	..	..	15,000
Charges	..	..	2,900
Charges on account of Agent for Government Consignments,	..	..	6,164
Establishment and Contingencies	..	..	..

13. With the above remarks, I beg to submit the estimates in question for the sanction of Government.

ORDER—dated 23rd October 1888, No. 790, Financial.

The Presidency Port Officer submits carefully-prepared estimates of receipts and expenditure in 1889-90.

2. The revenue from Port funds under Act XII of 1875 is entered at Rs. 3,51,760, which is respectively Rs. 44,000, 41,000 and 28,000 beneath the actuals of 1887-88, the average actuals of the three years ending March 1888, and the budget estimate of the current year. Captain Street speaks of the gradual falling off in receipts from 1885-86, but it is observed that the decline in 1886-87 was succeeded by a rise in the following year, in which the revenue was but a little behind that in the first of the three years. A revised estimate for 1888-89 has not been submitted, but from the last returns before Government, it seems probable that the budget estimate will be exceeded, as the income up to the end of July amounted to Rs. 1,35,000 in round numbers. The effect of the reduction in the rate of port dues would seem therefore to have been overestimated, and the Government will raise the Port officer's figures by about a quarter of a lac, fixing the estimate at Rs. 3,75,000.

3. The receipts under Act III of 1883 have been calculated with reference to the average of three years' actuals, and are set down at Rs. 11,500. The average is, however, vitiated by the income in 1886-87, which was below that of the years before and after it by between four and five thousand rupees. The receipts in the present year stood at Rs. 4,442 on July 31st, and Government think that the estimate proposed may be raised by Rs. 1,000.

4. Provincial receipts are entered at Rs. 3,000 nett, the estimate allowing for a payment of Rs. 12,000 to Port funds. In G.O., No. 1137, Financial, dated 22nd October 1887, final orders in regard to this contribution were promised; but, in consequence of the revision of Port fund accounts now proceeding, these have been unavoidably delayed.

5. Turning to the estimates of expenditure, the Government notice with satisfaction that Captain Street proposes a very considerable expenditure on works which will benefit the ports concerned, among them a screw-pile boat jetty at Tellicherry (Rs. 1,46,915); improvements to the entrance of the Kallai river (Rs. 2,000); a pillar and light at Point Calimere (Rs. 15,000); light-towers and quarters on two headlands in Canara district (Rs. 10,000); and a stone jetty at Kundapur (Rs. 3,000). Before these works can be undertaken by the Public Works Department, plans and estimates will have to be prepared and sanctioned, nor can the works be commenced until the ability of the separate Port funds concerned to bear the charge is ascertained. Captain Street will be good enough to state what progress has been made with the plans and estimates of the several works, in order that Government may be in a position to determine the total assignment to be made to the Public Works Department from excluded local funds.

6. The sum of the charges debitable to Port funds of 1875 is Rs. 4,51,538, distributed as shown below:—

	RS.
(a) Salaries	67,320
(b) Establishments (Port)	44,330
(c) Do. (Light-house)	18,432
(d) Contingencies (Port)	61,200
(e) Do. (Light-house)	8,450
(f) Superannuations	15,200
(g) Civil Works (Public Works Department)	13,385
(h) Do. (Departmental)	2,23,221

Under (e) is included the cost (Rs. 25,000) of a dredger and punts for Cuddalore. No provision is made this time for the Government steamer, as the intention of procuring one has been abandoned; or for a contribution to the Harbour Trust Board, as on the completion of the revision of the accounts the question of transferring part or the whole of the credit balance of the Madras Port will have to be considered. The total grant will be fixed at Rs. 4,50,000.

2852
11

7. The estimate of charges classed under Act III of 1883 is based, as regards ordinary expenditure, on the average of past actuals, an addition of some Rs. 800 being made, and the amount fixed at Rs. 11,000. Besides the ordinary grant, it is proposed to make a special assignment of Rs. 32,000 for a dredger with punts for the Cocanada groynes, raising the total estimate to Rs. 43,000. This proposal is approved provisionally.

8. The estimate of Provincial expenditure stands at Rs. 2,000 in round numbers and requires no remarks.

The estimates and grants as above modified will stand as follows :—

Revenue.		
XVIII Marine	Rs.	15,000
<i>Excluded Local (Port) funds.</i>		
(a) Under Act XII of 1875		3,75,000
(b) Do. III of 1883		12,500
<i>Expenditure.</i>		
21. Marine		9,000
<i>Excluded Local (Port) funds.</i>		
(a) Under Act XII of 1875		4,50,000
(b) Do. III of 1883		43,000
(True Extract.)		

J. F. PRICE,
Ag. Chief Secretary.

To the Presidency Port Officer.
" Accountant-General.
" Public Works Department.

Exd. W. H. French.

21

No 3493W of 13 Nov 1888.

Communicated to the
Suptg Engineers W & M
briels who will, in
communication with
the Presidency Port
officer, prepare plans
and estimates for the
works referred to in
para 5 of the order

2. The Financial Dept.
will be requested to
communicate as early as
practicable a list of the
works to be carried out
by the P. W. Department
from Excluded Local
Funds and the grants
available for them, to
admit of the budget
estimate for 1889-90 being
prepared in time for
submission to the Govt.
of India.

1/2 of H. P. L.
W.

S. Es. W & M briels
Genl. Dept.

Govt. of 1888 Madras
FINANCIAL.

Issued

Recd.

Encl.

G.O., 23rd October 1888, No. 790

OCTOBER.

Budget.

Reviewing the Marine — for 1889-90.

With order

No 864.

Marine Office,
Negapatam, 9th June 1888

2852

From

The Port Officer
Negapatam

To

The Port Officer,
Madras

Sir,

Having recently completed an
inspection of Point Calimere from which
I returned on the 7th instant, I have now
the honor to submit my opinion regarding
the most suitable kind of land work
for the Point.

2. I found the remains of the old
column completely surrounded by water
and lying about 500 feet from the beach
with the surf breaking over it.

3. The column, of which only about
(15) feet remains, has been built of
bricks on a square base just visible,
which seemed to be in good condition.
I do not, however, consider that it would
be advisable or even possible to rebuild
the column owing to the sea constantly

dashing
X

dashing over the masonry work, I would, therefore, recommend that an obelisk of about 60 feet in height and similar to the one at the Port of Calingapatam, be erected on the main land (which is low lying hereabouts) due West from the old column, and 500 feet inland of high water mark.

4. If it is considered advisable a lantern might be fitted on top of the obelisk, the light from which would be very useful to vessels rounding the Point at night, or steamers making for Mangasautorey.

I have &c.
Sd/ L. W. Wicks
Port Officer.

(True Copy)

W. S. Fernandes

Manager
Port Office
Madras
14/6/88.

Heading
Calimere Lighthouse
No. 2
66
To

Madras Port Office,
14th June 1888.

The Superintending Engineer
vt L. Wicks
Trichinopoly.

Sir,

Referring to para 3 of your letter dated 22nd August 1887, No 996 T.S., I have the honor to forward for your information a copy of a report of inspection of Point Calimere by Mr Wicks, Port Officer, Negapatam, and to observe that the iron standard proposed will have to be about 60 feet high.

2. I beg to enquire what the difference in cost will be if a column, as proposed by Mr Wicks, were erected instead.

I have the honor to be,
Sir,
Your Obedient Servant,

H. A. Theobald
Captain His Maj.
Port Officer.



From

The Port Officer
Madras

No. 8
86

Dated 14th June 1888

Enclos.

Point Calimere — Request
being to be informed of the cost
of the iron standard 60' high
proposed to be erected at —

Defn. Sub No. 787-T
21-6. 99 64

7852
OFFICE OF THE SUPERINTENDING ENGINEER,
6th CIRCLE.

Trichinopoly 27th June 1888
522/-

No. 66678

From J. W. Randall Esquire, M. I. C. E.
The Superintending Engineer,

6th Circle.

To

The Chief Engineer,
Public Works Department,
Madras.

Sir,

ENCLOSURES. 2

Will be copy 7-4-88
at 60/-

Referring to the remarks regarding the
Beacon at Point Calimere, in your
notes of inspection printed with G.O.
No. 1301 W of the 12th May 1887, I have the
honor to forward herewith a letter from
the Port Officer Madras, who states that
an Iron Beacon 60 feet high is needed.
2 A screw pile beacon could, I have
no doubt, be constructed without
much difficulty, and such a beacon
could be placed further out than
a masonry structure, as from the
report of Port Officer, Negapatam,
it is evident that at present the sea
is encroaching.

3 If it be decided to put a beacon
of this kind, it would, I believe,
be

be best to send home a general
specification and to get out a beacon
complete from England. The dimen-
-sions and general details of such
a structure would be ^{better} known to those
firms in England, in the habit of
manufacturing them, than to us.

4. I find there is an article on
Screw pile Beacons in Volume VII <sup>not in the
Library</sup>
of the Minutes of Proceedings of the
Institution of Civil Engineers.

I have not however any such early
volume. It may in your Office or
in the R. C. Library Madras. A
perusal of this article might assist
in drawing up the specification
for transmission home, should
you decide on adopting my sug-
gestion, and order a Beacon from
England.

I have the honor to be,

Sir,

Your most obedient Servant,

L. W. Pindall

Superintending Engineer (C. Circle).

id 72

7852
15

12

P. W. D. 6th CIRCLE.

From

The Superintending Engineer,
6th Circle.

To

The Chief Engineer
P.O.S.

No. 66672

Dated 21
8-72 } June 1888.
Received 2

Enclosure. 2

No 2423 C of 27-6-88

Forwards letter from
Post office at Madras re-
questing the erection of a
Iron Beacon at Point
Calmore —

on
an order
in
26-6-88

No 2423 C of 27-6-88

No. 2423 C

Government of Madras.

PUBLIC WORKS DEPARTMENT,

Chopak, 27 June 1888

OFFICE NOTE.

From

W

To

S.E.V

The Marine Dept
require an iron beacon
60 feet high to be erected
at Point Calmore, & the
S.E.VI circle suggests
that a general specifica-
-tion be drawn up &
sent to England, in view
to a beacon complete
being obtained through
the India office.

Please ascertain
whether any information
on the subject is

28/6

available in the P.W.
Workshops. Messrs
Chance Bros are the
chief makers of fittings
for light houses, and
it is possible that
the General Supt has
catalogues that will
give information
about beacons.

Please reply by the
end of this week, in
view to the papers
being submitted to
Col. Hatched on his
arrival on Monday
next.

(Ed) W. L. C. B.

27-6-88

D.W.

27/6/88

2852

IV

(4/2516)

1888

Col. Hatched of the Madras
of the Institute of C.E.O.
is not in the P.W. Stores,
but as it would be
more than 30 years old,
I do not think that it
would give any information
before which to proceed in
preparation for a modern
type of lighthouse beacon.
If the S. will give the
following information
I have no doubt that
the beacon could be
obtained from England.

I a rough sketch showing
proposed site for the beacon
with depth of High &
Low water, nature of
soil with which the pile would
be driven.
The distance at which the
light should be visible.
The arrangements proposed
for tendering the light.

P.T.O.

2852

P. W. STORE DEPARTMENT,

Madras, 28th June 1888.

W. L. C. B. Clarke Esq.,
L. SUPERINTENDENT,
PUBLIC WORKS STORES,

Intending Engineer
& Clerk.

With reference to your 27-1888

I have the honor to inform you
to give any information about
since there is no catalogue
reference on the said subject in

I have the honor to be,
Sir,

Yours most obedient servant

W. L. C. B. Clarke
General Supt. P. W. Stores

2852

available in the P.W.
Workshops. Messrs
Chance Bros are the
chief makers of fittings
for light houses, and
it is possible that
the General Supt has
catalogues that will
give information
about beacons.

Please reply by the
end of this week, in
view to the papers
being submitted to
Col. Hasked on his
arrival on Monday
next.

(Ed) W.D.C.B.

27-6-88

D.W.

27/6/88

It is probable that the
Lantern should be
fixed high, and be mainly
protected with reflecting
but the air through which
the light is to be visible
should be stated.
Probably for use by day
the beacon will be furnished
with a red shell, or some other
conspicuous object.

In short if the S. will
start the class of beacons
that is required, the
India S. Dept will
furnish drawings &
photographs, with which
enough from there on
selection can be made.

W.D.C.B.
26.6.88

S.P.W. Before sending this to
W refer to the Workshops.
Messrs Chance Bros are the chief
makers of fittings for light houses
and it is possible that the Genl
Supt has catalogues that will
give information about beacons.

P. W. STORE DEPARTMENT,

Madras, 28th June 1888.

Mr S. B. Clarke R.E.,
AL SUPERINTENDENT,
PUBLIC WORKS STORES,

Resident Engineer
S. B. Clarke.

With reference to your 27-1888

I have the honor to inform you
to give any information about
since there is no catalogue
reference on the said subject in

I have the honor to be,
Sir,

Yours most obediently

W.D.C.B.
General Supt. P. W. Stores

available in the P.W.
Workshops. Messrs
Chance Bros are the
chief makers of fittings
for light houses, and
it is possible that
the General Supt has
catalogues that will
give information
about beacons.

Please reply by the
end of this week, in
view to the papers
being submitted to
Col. Hasted on his
arrival on Monday
next.

(Ld) W. L. C. B.

27-6-88

D.W.

27/6/88

The British Office to be visited
for more information for our
Iron beacon with lantern
Complete, according to the
Specification given by W. Thomson

W. L. C. B.
7.1.89.

Dear

We would be
willing to give any
information about
iron beacons.

Proposed to
submit the papers
to W. with your
note.

C.
29.6.88

Yrs
W. L. C. B.

Before sending Dwyer and I
think we should refer again to
Capt. Lister, telling him that as
his beacon with lantern has been
from Dwyer and we cannot find him
the information as to the last lamp
with lantern obsolete but if he will state
whether he wants it being light
as required, & what details him of
light information will be obtained.
If there is a light beacon house
must be built, then lower lamp
before in a stone the top of the
building must be high the lantern

W. L. C. B.
27/6/88

2852
P. W. STORE DEPARTMENT,

Madras, 28th June 1888.

Col. S. B. Clarke R.E.,
RAL SUPERINTENDENT,
PUBLIC WORKS STORES,

Assistant Engineer
Bride.

With reference to your 27-1888
1888.

I have the honor to inform you
to give any information about
since there is no catalogue
reference on the said subject in

I have the honor to be,
Sir,

Yours most obediently

W. L. C. B.
General Supt. P. W. Stores

W. L. C. B.

available in the P.W.
Workshops. Messrs
Chance Bros are the
chief makers of fittings
for light houses, and
it is possible that
the General Supt has
catalogues that will
give information
about beacons.

Please reply by the
end of this week, in
view to the papers
being submitted to
Col. Hasted on his
arrival on Monday
next.

(Ed) W.D.C.B.

27-6-88

D.W.

Rev^{no}
27/6/88

B.26.7.88

No. 3301

2852
P. W. STORE DEPARTMENT,

Madras, 28th June 1888.

From

Lieut^{Col} S. B. Clarke R.E.

THE GENERAL SUPERINTENDENT,

PUBLIC WORKS STORES,

To

THE Superintending Engineer
S. B. Clarke.

SIR,

With reference to your 27-1888
dated 27th June 1888.

I have the honor to inform you
that I am unable to give any information about
Iron Beacons, since there is no catalogue
nor Book of reference on the said subject in
this office.

I have the honor to be,
Sir,

Yours most obediently,
S. B. Clarke

General Supt^g P. W. Stores

7/8

N^o. 1392

Forwarded to the
Chief Engineer, P.W.
Department with
reference to his
Office Note No. 2423C
dated 27 June 1888.

A. Michael Smith
Asst. Engr.
For Superintendent Engr.
5th Circle
About an duty
29 June 1888.

Presidency Workshops, Madras.
P.W.C. No. 3335
From THE GENERAL SUPERINTENDENT,
PRESIDENCY WORKSHOPS, Madras.

To The Superintending Engineer
5th Circle

No. 330 A.
Dated 28 June 1888.
Despd. 28 June 1888.
Reed. 29 June 1888.
No. of ENCLOSURES.

No. 2511C d/4 July 1888
Subject.

States that he is
unable to give any information
about the Iron Beacons, since
there is no Catalogue in his office.

No. 2511C d/4 July 1888

2552
P.W.D.

memo

With reference to
letter from the Port Officer
Madras to the Super. Engr.
VI Circle, No. 2/14
June 1888, the undersigned
has the honor to state
that as an Iron Beacon
would have to be
obtained from England,
the cost as compared
with that of an S.S. Beacon
cannot be given - If
however the Port
Officer will state
whether he wishes the
beacon to carry a
light, as suggested
by Mr. Wicks, and
if so, what description
of light, the in-
formation

information as regards cost -
will be obtained from
England -

2. It is observed that
if a light be required,
larkens houses will have
to be built, - but there
never was a light at
Point Calimere before,
& in a storm the whole
of the low lying coast -
is likely to be submerged.

J. 2/7/88

No. 2423 C d/27-6-88
" 2424 " 7-4-88

Cu - 5/7/88

To the Port Office
Madras -

N^o. 8
85

Madras Port Office
19th July 1888. 852

ing To
new Beacon

The Chief Engineer
Public Works Department

Sir

With reference to your Memo.
numbers, N^o. 2511 C, dated 4th instant,
I have the honor to state that from
information lately afforded by the
Port Office, Negapatam, I am of
opinion, that a light is necessary
at Point Calimere.

2. The light would have to be
either a 6th order or a 4th order
Dioptric, according to height of
tripod.

I have the honor to be
Sir

Your Obedient Servant
H. A. Threlk
Captain & Master
Port Office

and

No 2511C of 4.7.88
" 2423C " 27.6.88
" 242D " 7.4.88

P.W.C.

(4)

Recd 20.7.88

No. 2997 C of 7-8-88

3. 26.7.88

No. P

Madras Port Office,
27/3rd August, 1888.

From

The Port Officer,
Madras

To

The Chief Engineer to Government,
Public Works Department,
Madras

Sir,

I have the honor, by direction of
Government, and in continuation of the cor-
respondence noted in the margin, to request

Your Memo: No 2511C of 4th July 1888
This Office No 25 of 19th Dec

you will be good enough
to favor me with an

+ put up for Govt
7152 with W.

Estimate of the cost of the beacon proposed
for Point Calimere. The class of light to be
exhibited therefrom will depend on the
height of the beacon.

I have the honor to be

Sir,

Your Obedient Servant

H. A. Street

Captain Helliwell.

Port Officer.

17

mm

P.W.C. No. 7599

Recd 4-8-88

No. 2997C d/7-8-88

No. 2997C d/7-8-88 2852

Memo

With reference to letter from the Supt. of Engrs. vs Circle C/O to C. J. J. of 21st June 1888, the undersigned has the honor to forward copies of the correspondence marginally noted, and to request that the Supt. of Engrs. will, in communication with the Port Officer Madras, prepare a general specification of an iron beacon to be put up at Point Calimere.

The specification should be accompanied by a sketch showing the proposed site for the beacon, with depth of high and low water, and the nature of soil into which the piles are to be screwed. The distance at which the light should be visible should be stated in the specification, as also whether for use by day, the beacon should be provided with

with a red ball or other conspicuous object.

2. On receipt of the specification, the India Office will be requested to furnish an estimate, with drawings and photographs, if possible.

John
5/8/88

No. 2511C/4-7-88
- 2423C-27-6-88
- 1301W-12-5-87

No. 2997C/4/7 Aug 1888
J. H. Hughes Esq
5/8/88

To The Supt. Engg
6th Circle
Copy to the Port Officer,
Madras
with reference to letter
no. P. 43.8.88
Right

26525
OFFICE OF THE SUPERINTENDING ENGINEER,
6TH CIRCLE

Trichinopoly. 14 November 1888.
Dep. 15.

No. 1800TS
From W. Hughes Esq
The Superintending Engineer,
6th Circle.

To The Chief Engineer
P. O. D.

Sir,

ENCLOSURES. 6.

- * 1. sketch of site
- + 1 Survey with levels.
- * 1 Super plan of Light House
- * 1 Plan of Light House
- Keepers Quarters.
- 1. Report & specification
- 1 Copy of SO No. 955 main
- to be returned.
- * sent separately

with reference to your memo No. 2997C, dated 7 August 1888, I have the honor to forward a survey of the site of proposed light house at Point Calimere, a plan showing the type of structure, which it is thought would be most suitable, a plan of light keepers huts, and a general report, and specification. A water colour sketch also accompanies the papers.

2. The Executive Engineer proposes building the light house at the Trigonometrical survey station, which is (as scaled from the map) is about 1120 ft from the shore at ordinary

22

high tide. but the survey officers
may perhaps prefer having it
built at some distance away.

3. Quarters will be required
for a light-house keeper and three
Lascars, but it seems unnecessary
to make any detail estimate
for these buildings at present.
They need not cost very much
as bricks can be made a few
miles away.

I have the honor to be

sir

your most obedient servant.

W. Hughes

Supt. Engineer India.

K

2852
26

22

P. W. D. 6th CIRCLE.

From

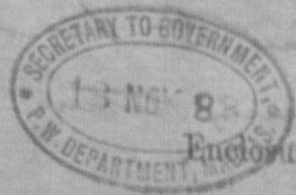
The Superintending Engineer,
6th Circle.

To

The Chief Engineer
P. W. D.

No. 180075 Madras

Dated 14th Nov 1888
Received



No. 583017-2-89

Light House at Point
Calimere.

Submitting Site Plan
for constructing
the —

14/11/89
J

2852
2852

2852

The accompanying
plans show a design
for an iron structure of
point Calimere and
submitted by the
Superintending Engineer
with reference to
this Office Memo
No 29970 of 7th July 88
and No 34934 of 13th Aug 88

Enclosure of the
plans
and
No 1000

The proposed structure
is to be 50 feet high
and will be constructed
with the cast iron columns
braced together and
pinned at the top
iron piles driven
down 15 feet into
the ground with
a mass of concrete
laid about them
6 ft deep 6 ft x 6 ft
square. The horizontal
frames, bracing
the wrought iron piles
with the cast iron columns

The instructions and
position of the columns
have in position in relation
it would not be considered
to the strength of the
structure and at the
same time lessen
the width of the
platform which
appears to be wider
than is necessary.

C. H. P.

R. H. 20/11/88

In the concluding
part of the memo
above referred to
it is stated that
in view of the
specification the
India Office will
be requested to
furnish an Est.
with drawings and
photographs if
possible.

C. H. P.

N. P.
28

Presidency Port Office
Madras 23 January 1889

Reading
were Beacon

To

The Chief Engineer to Government,
Public Works Department.

Sir,

Adverting to your Memorandum
dated 7th August 1888, N. 2997 C. I
have the honor to enquire the probable
date on which I may expect to re-
ceive the Estimate of cost of the beacon
proposed for Point Calimere.

I have the honor to be

Sir,

Your Obedient Servant

H. A. Street

Captain H. A. Street
Presidency Port Office.

30

are to be maintained
to the concrete by
means of anchor
bolts and plates.

The height above ground
is to be of the 4th order
dioptric. The weight
of the lantern with
the 4th lens.

The lantern, it is
planned to be
during week to withstand
a pressure of 50 lbs per
sq. foot due to a wind
velocity of 100 miles
per hour.

The site, which is
1100 ft from the
shore and 3.50 above
M.S.L., was indicated
by the Port Officer
of Nagasaki
and the Ex. Engr
on account of its
being particularly
well suited for
the proposed light
house. There is
a trigonometrical
station on the site
(No 6 of 1880) and the

285 Engr. Engr. appears to
have decided as to
the position the trigonometrical
station would appear
of the light house being
constructed on the
spot. It is referred
to the trigonometrical
survey depth, as this
point may be
necessary. The
said is stated to
be simply said.

The bottom piles
with brack stones
were used in the
foundation a greater
depth could be
obtained which
seems necessary
and which would
probably be away
with the uncertainty
for concrete, and
it may be well
to use wrought
iron instead of cast
iron columns for

Maclean 11/4/89

By 6/2/89

No. 582 c. 1/7 8/8/89

2852
30

- 1 Site plan.
- 2+3 Plan of huts and sheds.
- 4+5 Plan & estimate for construction.
- 6+7 Report and specification for construction of a proposed to erect a proposed column - this would have to be obtained from England.
- 8 Plan of Negapatnam lighthouse.

X2

Presidency Port Office
Madras 25 April 1889.

3rd December 88

857
V. 87

Enclosures. 6

1. 5 Off from Baddeley
1. Letter of Pt Calumet (to be returned)
1. Tracing Plan of Negapatam Lt Ho:
bearing names of Lt
2. Plan for Point Column for Pt Calumet
1. Site for do
1. Site of Lt of light keeper houses - a plan
of which was sent up officially with
type sketch for from Beach

My dear Hughes

I return Baddeley's letter.

Of course there is no necessity to put the
Pt Calumet light on the exact spot
of the Trip Station.

The light Ho. should not be more than half
a mile inland in my opinion and
Captain Wicks (Port Office) agrees
with this opinion.

Rockyard either
in Bombay, and all
that

Presidency Port Office
 Madras 25 April 1889.

Chief Engineer
 Public Works Department.

to your letter # 583, 6
 of 1889, I have the
 pleasure to inform you that after further
 consideration of the necessity of having
 a mast at Calcutta, I have
 concluded that a light
 mast for the use of small
 boats within 3 or 4 miles
 of the shore is frequently I think,
 a mast will be all
 that is required for a light the
 mast which need not be
 more than 100 feet high.
 This mast,
 can be procured from the
 Dockyard either
 at Bombay, and all
 that

31.54

Enclosed for
 the Chief Engineer
 Public Works Department
 is a report on
 the proposed mast
 at Calcutta
 for the use of small
 boats within 3 or 4 miles
 of the shore.
 I am, Sir,
 Yours faithfully,
 J. H. M. S.

Corse & Co. But I think we can use
 brick. There is a fine Gopuram to the
 Vedanagar Temple & our Columns will
 be cement plastered. There is not a
 decent brick to be got in the district
 but for such bricks. Madrasworth does
 1717 lbs as crushing weight per sq inch
 whereas our proposed Columns ^{the load on pipes} it is
 comes to 70 lbs per sq in at base.
 As I reckon on getting bricks in the
 neighbourhood of Vedanagar.
 Water will I think be procurable from
 Kodikaran some 3 miles off
 sufficient for our requirements. I
 draft it while at Calcutta.

Summary of cost of 100 Columns

Item	Price
21663	13063
3440 (feet)	3240
14203	16303
say 25,000	

Yours sincerely
 J. H. M. S.

Presidency Parl Office
Madras 25 April 1889.

I send the original survey of Pt Calcutta
I have marked the site for a light-house
half a mile in land.

Putting the light 1 mile in land & taking
an extra 5 ft height of column.

An Iron Beacon of the type (from Genl
Hindley) would; exclusive of lantern;
weigh 60 tons (sixty tons).

Taking rates from G.O. 3582 w. 12. 11. 88 just
calculated for Bridges of large spans.

Such a Beacon would cost exclusive of
60 tons $\times 16\frac{1}{2} \times 15 = 14,850$

I suppose 25 pc of this cost the added
for construction etc. figures total 18,56
or with lantern Rs 21,663.

I enclose a plan for Brick Column with
granite Capital & spiral stair with
an estimate of cost, inclusive of the
lantern, Rs 13,063.

Col. Pakes in G.O. 955. 11 April 86 estimated
that a column 45 ft high would
cost Rs 10,000. I am inclined to think
my estimate low. But the draftsman
has calculated that it will allow a
margin for profit if done on contract.
You know it's a difficult place of access.
Stone must come by Rail from Kaur or the
south of Trichy to Negabalan & be
taken down 26 miles by Canal, and
then 14 miles heavy sand a good haul &
the way by carts. Then labour will be dear
for it & hard to get. Col. Pakes says

Rockyard either
in Bombay, and all
that

Coral Stone. Now
 built. There is a
 Vedarum Temp
 lie cement pla
 decent built to
 but for incl. 1889
 1717 lb. as Cris
 Whereas in our pres
 comes to 70 lb. 2
 As I reckon on for
 neighbour hood of
 Water will I think
 Kodikaran m

sufficient fresh
 drink it will
 Estimate of cost of dig

Item	Price
21663	13063
3290 (huts)	3240
24903	16303
Say 25,000	

2852

Presidency Port Office
 Madras 25 April 1889.

2852

Chief Engineer
 Public Works Department.

Enclosures 8

to your letter No 583.6
 of 1889, I have the
 to you that after further
 the necessity of having
 at Calcutta. I have
 conclusion that a light
 for the use of small
 within 3 or 4 miles
 consequently I think,
 mast will be all
 for a light the
 which need not be
 miles. This mast,
 procure from the
 Dockyard either
 Bombay, and all
 that

* 60' will allow the light to be
 seen at a distance of about
 15 miles from the deck of
 a ship 15 ft. above the above
 water.

Coral stone. Some
 brick. There is a
 Redarium. Some
 lie current pla
 decent brick to
 but for such. There
 1717 lb as crushed
 Whereas in our pres
 comes to 70 lb
 As I reckon on for
 neighbour's load of
 water will I think
 Kodikarar is
 sufficiently fresh
 drink it when

* a least estimate for
 a masonry column
 are forwarded.

Plan forwarded

Estimate of cost of dyke

Item	Value
21463	13063
3240 (masonry)	3240
2490.3	16303
Rs 25,000	

To the Presidency
 Port Office

Presidency Port Office
 Madras 25 April 1889.

With reference to your
 letter No. 25 Jan 89
 and the various considerations
 I have the honor to
 forward in answer of the
 subject referred to the
 Port Office. I shall be
 glad to hear from you
 when please of the letter
 the estimated cost of
 which was Rs 3240
 and I shall be glad to be
 informed if you require
 information of them.

2. With regard to the
 Light House I think it
 will be better situated
 which should be the column
 should be above the water
 level in the ground
 from the consideration
 I judge that to have it
 if the light is
 60 ft above the sea
 level it will be better
 than that in the ground.

of Engineers
 Works Department.

to your letter No 583.6
 of 1889, I have the
 honor to inform you that after further
 consideration of the necessity of having
 a light at Coalmere, I have
 concluded that a light
 should be provided for the use of small
 boats within 3 or 4 miles
 consequently I think
 a mast will be all
 that is required for a light the
 which need not be
 more than 10 miles. This mast
 may be procured from the
 Dockyard either
 at Bombay, and all
 that

Coral Stone. Not
 built. There is a
 Vedarum Temp
 the cement pla
 decent brick to
 but for much. We
 1717 lb as Cris
 Whereas in our pris
 comes to 70 lb
 As I reckon on
 neighbour hood
 water will I then

Kodakara is
 sufficiently fresh
 drink it when
 Estimate of cost of dy

Am.	Rs.
21663	13063
3240 (huty)	3240
24903	Rs 16303
Rs 25,000	

The column to
 carry the light con
 the height of them
 in the distance

The beam would probably
 be the most convenient
 but it would be somewhat
 more awkward than

The latter (something
 similar to the light
 beam at the station)

70 1/4 ft.
 1070 at a cost of
 about Rs 20000) would
 be more convenient

Shd you consider it
 advisable to have the
 construction of iron

I prefer after collecting
 the necessary information
 to construct a light
 on the other side
 suitable chosen
 estimate.

If however you think
 a masonry column
 will answer the purpose
 I will have them a

estimate prepared
 the probable cost of
 a column ^{60 ft high} with
 lantern ^{with} the
 Rs 11,000

I shall be glad if you
 inform me which you
 would prefer

Yr
 J. H. M.

2/2/89

Presidency Port Office
 Madras 25 April 1889.
 7857

Chief Engineer
 the Works Department.

In reply to your letter of 583.6
 dated 1889, I have the
 pleasure to inform you that after further
 consideration of the necessity of having
 a light at Calcutta, I have
 come to the conclusion that a light
 is required for the use of small
 vessels within 3 or 4 miles
 consequently I think
 a mast will be all
 that is required for a light the
 of which need not be
 more than 100 feet high.
 This mast,
 can be procured from the
 at Dockyard either
 at Bombay, and all
 that

No. 29970 of 7th 5-88
 - 2500 - 4-7-88
 - 24230 - 27-6-88
 - 13014 - 12-5-87
 - 34934 - 3-11-88

Coral & lime. From
 brick. There is a
 Vedarum temple
 the cement place
 decent brick but
 but for much less
 1717 lbs as Cris
 Whereas in our price
 comes to 70 lbs
 As I reckon in
 neighbour hood
 water will I think
 Kodikaran is
 insufficiently fresh
 drink it will
 Estimate of cost of dist

Item	Price
21663	13063
3240 (buck)	3240
24903	Rs 16303
Rs	
Say 25,000	

22/6 C 583/6
 65 2652

Incidency Port Office
 Madras 25 April 1889.
 7857

1. Site plan of Light House at Pt. Calimere.
2. Plan of accommodation for one Light House Keeper & 3 lascars at Pt. Calimere
3. Estimate for above.
4. Plan for brick Column
5. Estimate for above.
- 6 & 7. Report & specification based on a proposal to erect an iron Column.
8. Training plan of the conclusion that a light
9. Sketch of Pt. Calimere showing site for proposed Light House to be built on the spot occupied by the S.D.S. Station No 6 of 88.
10. Survey of Pt. Calimere
11. Copy of S.O. No 955 marine of 11-4-76
12. Plans of site of proposed Light house at Pt. Calimere

Chief Engineer
 Public Works Department.

By to your letter No 583.6
 January 1889, I have the
 from you that after further
 the necessity of having
 Point Calimere. I have
 the conclusion that a light
 for the use of small
 within 3 or 4 miles
 consequently I think,
 ten mast will be all
 red for a light the
 of which need not be
 six miles. This mast,
 can procure from the
 at Dockyard either
 or Bombay, and all
 that

Coral stone. It
 brick. There is a
 Vedarianum. It
 is cemented
 decent brick
 but for such it is
 1717 lbs as per
 whereas in our
 comes to 70 lbs
 as I reckon in
 neighbour hood
 water will I think
 Kodikaran is
 sufficiently fresh
 drink it will
 Estimate of cost of day

Item	Price
21663	13063
3290 (bats)	3240
34903	76303
25,000	

These papers belong
 to file about
 light house at

Presidency Port Office
 Madras 25 April 1889.
 Chief Engineer
 Public Works Department.

S. A. W.

Please see D.W.'s
 pencil note about
 enclosures. Are
 any enclosures to go
 with this memo?

187
 4/5/89

In reply to your letter of 583.6
 January 1889, I have the
 honor to inform you that after further
 consideration of the necessity of having
 Point Calimere, I have
 come to the conclusion that a light
 is required for the use of small
 sailing within 3 or 4 miles
 of the point consequently I think
 a mast will be all

These papers will
 be sent to S. G. when
 the orders are passed
 the whole correspondence
 will be under reference for
 the light house
 quarters.

required for a light the
 of which need not be
 six miles. This mast
 can be procured from the
 at Dockyard either
 at or Bombay, and all
 that

4/5/89

Coral stone. It
 built. There is
 Redarium. It
 is current for
 decent built
 but for such it
 1717 lb as Cris
 Whereas in our
 comes to 70 lb.
 As I reckon in
 neighbour hood
 water will I think
 Rodi Karan
 sufficient fresh
 drink it will
 estimate of cost of dig

Item	Value
21663	13063
3240 (buck)	3240
2420.3	16303
say 25,000	

Dr.

287

These papers belong
 to the file about
 a light house at
 Point Calimere.
 a current number
 on the subject
 with a draft
 disposal was
 sent up to you
 this morning.

FR.

29.4.89

Return the papers
 to S.E. VI - The light house
 6 not necessary
 29.4.89 37/40

Dr.

These papers will be
 returned to S.E. when
 final orders are passed
 on the whole correspon-
 dence. The matter is
 still under reference for
 estimate for light keep-
 ers quarters.

FR.

29/4/89

Presidency Port Office

Madras 25 April 1889.

287

Chief Engineer
 Public Works Department.

In reply to your letter of 583.6
 January 1889, I have the
 honor to inform you that after further
 consideration of the necessity of having
 Point Calimere, I have

come to the conclusion that a light
 should be provided for the use of small
 sailing vessels within 3 or 4 miles
 of the point consequently I think
 a light mast will be all
 that is required for a light the
 height of which need not be
 more than six miles. This mast
 can be procured from the
 Government Dockyard either
 at Bombay, and all
 that

Coal & lime. No
 brick. There
 Reddarnam De
 lie cement for
 decent brick
 but for much
 1717 lbs as Cr
 Whereas in our
 comes to 70 lb
 As I reckon in
 neighbour's wood
 water will I the
 Kodikaran
 sufficiently for
 draft it will
 Estimate of cost of the

Rs. 21663 3240 (huty) 2490.3 Rs. say 25,000	Rs. 13063 3240 Rs. 16303
--	-----------------------------------

No. $\frac{P}{85}$

Presidency Port Office
 Madras 25 April 1889.

7857

To

The Chief Engineer
 Public Works Department.

Sir,

In reply to your letter No 583.6
 dated 7th February 1889, I have the
 honor to inform you that after further
 enquiring into the necessity of having
 a light at Point Calimere, I have
 arrived at the conclusion that a light
 is only required for the use of small
 vessels passing within 3 or 4 miles
 of the point, consequently I think
 that a wooden mast will be all
 that is required for a light the
 visibility of which need not be
 more than six miles. This mast,
 I think, I can procure from the
 Government Dockyard either
 at Calcutta or Bombay, and all
 that

that the Public Works Department
will have to provide an quarters for
two lightkeepers an estimate of
which, I beg, may be supplied.
The enclosures forwarded with
your letter are herewith returned

I have the honor to be
Sir,

Your Obedient Servant

H. A. Street

Captain H. A. Street

Presidency Port Officer.

No. 503c 47-2-87
Memo 3498W of 3-11-87
Memo 2997C of 4-7-87
" 254C of 4-7-87
" 2423C of 7-6-87
8th Memo 1281W of 12-5-87

C Copy forwarded to
the Capt. H. A. Street
with reference to the
estimate of Rs. 1,600
for the quarters required at
Point Calimere.

29/5/87
S. E. & Co. all with
enclosures.

8 in number

(1)

1926-4-87

7/10/87

188 9

P. W. DEPARTMENT.

Current No. 5164

Letter

From

The S. E. & Co. Ltd

ENCLOS. - 4

No. 466 J. J.

Dated 3-6-87

Received 7-6-87

SUBJECT.

Quarters for two Light keepers
at Point Calimere

Submitting a plan and
an estimate amounting
to Rs. 1,600 for constructing.

DISPOSAL.

No. 336 J.

Dated 15 June 87

Forwarded to the
Marine Dept. for the
approval & countersignature
of the Presidency Port
officer.

The Marine Dept.
with enclos. to be returned

Public Works Department.

Current No. 5164

Letter No. 466 T. J.

Dated 3 June 1887

From the Supt. Engr. & Civil

Plan & Est. to be
transmitted to the Marine Dept.

NOTE OF REMARKS.

10.6.87

The estimate under
reference amounting
to Rs. 1,600 provided
for constructing quarters
for two light keepers
at Point Calimere in
the Sanguis Dist. -

The Est. was called
for in this Office Memo
No. 2216 C of 6th May/87.

The building is
of an ordinary kind
with a tiled roof
supported by columns
and single cotton pillars.
The walls are to be
of brick & mortar
& plastered on both sides.
All the wood work is
to be of jungle wood
and the construction
of the roof timbers
are correct.

that the Public Works Dept
will have to provide and
two lightkeepers an estimate
which, I beg, may be sent
The enclosures forwarded
your letter are herewith

I have the honor
Sir,

Your Obedient

H. A. T. H.

Captain H. A. T. H.

Presidency Secy

583C 47-2-89
10. 1103498W 43-11-88
11. 2997C 47-5-88
12. 2511C 44-7-88
13. 2423C 47-6-88
14. 1301W 42-5-88

Ans. 82/5/89

29/4

2852

Public Works Department

Current No. 5764

Letter No. 466 T.T.

Dated 3rd June 1889

From the Super. Engr. & Archt.

Transferred to the Marine Dept.

NOTE OF REMARKS. 10.6.89

The estimate under
various measurements
for the 1600 provided
for constructing
for two light keepers
at Point Calumet in
the Indian Dist: -

The est. was called
for in this Office Memo
No 2216 C d/6th May/89.

The building is
of an ordinary kind
with a tiled roof
supported by rafters
and single cotton poles.
The walls are to be
of brick & mortar
& plastered on both sides.
All the wood work is
to be of jungle wood
and the scaffolding
of the roof trusses
are carried -

The building is well
furnished with 3' of brickwork
on 3' of concrete, in all
6' deep -

The total area of the
building is 1010 sq feet
and with cost Rs 1-9-3
per sq foot -

Some of the rates are
slightly higher than
the rates given in the
Schedule for the
Mysore Division
but it is explained
in the report that
materials and
labor are difficult
to be procured at
Taint Calcutta -

The plan and Est.
have not been counter-
signed by the Presidency
Post Office nor approved
by the Marine Dept. -

Chas P
8/6/24

2852

415

2216.C af 6-5-89
 583.C af 7-2-89
 3493W af 3-11-88
 2997C af 7-8-88
 2511.C af 4-7-88
 2423.C af 27-6-88
 1301W af 12-5-87

No 336 D af 15-6-89

af 15-6-89

Public Works Department.

Current No. 9190

Letter No. 417

Dated 30th September 1889

From the Marine Dept.

B. Santhorn
 NOTE OF REMARKS.

The plan & estimate amounting to Rs 1200 for constructing quarters for two Lightkeepers at Point Calimere, have already been scrutinized in the T section & forwarded to the Marine Department for the approval & counter-signature of the Presidency Port Officer vide this office No 336 D dated 15th June 1889.

The estimate has accordingly been counter-signed by the Presidency Port Officer & approved in the Marine Dept vide

48 W

Under No. 417 dated 30th
September 1889 of the
Marine Department.

St. H.
2-10-89

2552
OFFICE OF THE SUPERINTENDING ENGINEER,
6TH CIRCLE.

Camp. Kodakkal 3rd June 1889.
Camp 5th.

No. 46675

From Lt. Col. A. L. Smith M.R.
The Superintending Engineer,
6th Circle.

To
The Chief Engineer
D. M. A.

Sir,

With reference to your memorandum
No. 2216. C. dated 6th instant I have the honor
to submit a plan and an estimate amounting
to Rs. 1,600 for constructing quarters for two
Light keepers at Point Calanere prepared in
consultation with the Port Officer at Negapatam.

I have the honor to be

Sir

Your obedient servant

Aldwinth Lt. Col. M.R.
Superintending Engineer

ENCLOSURES. 2

- 1. Plan
- 1. Estimate
- 1. Report

44 1/2

Memo No 2216 of 7.5.89
 5830 of 7.2.89
 No 3493 of 8.11.88
 Memo No 1997 of 7.2.89
 " 25 " of 4.7.89

N=336 of 15 June 89 2p

Forwarded to the
 Marine Department for the
 approval and countersignature
 of the Presidency Port Officer.

Quedala. Buchanan,

2d Col. H.B.
 Ag. St. Secy. to Govt. P.W.D.

3p
 12.6.89 583

Forwarded to the Presidency
 Port Officer

As. Secy.
 Civil Secretary



To The Marine Dept. with
 4 & encls. to be returned.
 (1 plan).

12/6.

The Supg. Engineer,
 VI Circle,
 Trichinopoly

To The Chief Engineer,
 P.W.D.
 Madras.

N=46675

Dated 3rd June 1889.
 Recd 5th 7



Enclosures 2 Plans

Lightkeeper's Quarters
 at Point Calimere.

Forwarded for sanction.
 Plans & Estimate amounting
 to Rs 1600 for Constructing
 two —

with endorsement

Madras Port Office,
 19th June 89

N=350

Reading from
 Calumere Beacon

The Port Officer,
 Madras.

To The Chief Secretary to Government
 Marine Department
 Fort Saint George.

Sir,

In the late Captain Saylor's
 letter to Government No 2276, dated
 16th March 1887, attention was drawn
 to the necessity of placing a tripod of
 iron screw piles on Point Calumere,
 and the Superintending Engineer, VIth
 Circle, having called for information
 as to the height of the same — vide
 enclosure published in Proceedings
 No 93, Public Works, 11th January 1888,
 I placed myself in communication
 with Mr Wicks, the Port Officer at
 Negapatam, on the subject, in view
 to obtaining the information required.

Mr Wicks

Mr Wicks, after visiting Point Calimere, recommended that an Obelisk of about sixty feet in height should be erected on the main land due West from the old column, and about 500 feet inland of the high water mark. He is further of opinion that a light (red) is necessary, as most of the Native Craft leaving Palki Bay use the Northern passage and pass within 3 or 4 miles of the Point and that many of the Sindals had asked him to have a light placed on the Point. He further reports that the B. I. S. Company have commenced running a weekly line of steamers from Negapatam to Kankasanthoray, in Ceylon, and that a light, as suggested, would be of considerable use to these vessels. In this view I concur and would recommend sanction being accorded to a light being placed on the Tripod or Column, whichever

whichever may be, erected. Should a Column be decided on, of the height proposed, a Sixth Order Red Dioptric Light would be sufficient; but if a Tripod, and the height be under 60 feet, a more powerful light - one of the 4th Order Dioptric - would be necessary. Mr Wicks also states that there are bungalows, a little distance south of the Point, which have stood there for many years, and these bungalows might possibly be found useful as quarters for the lightkeepers.

I have the honor to be,
Sir,

Your Obedient Servant,

H. A. Street

Captain His Hon.
Port Officer.

mmf

80 14.4.87: 150-1
30.1.88: 25-1

Marine CURRENT NO. 666
(1888) DEPARTMENT.

From

THE PORT OFFICER,
Madras,

To

THE CHIEF SECY. TO GOVERNMENT,
MARINE DEPARTMENT,
Fort St. George.

No. *4*
360

Dated *19th* July 1888.

Received *20th* July

No.



Subject.

*Recommending for a
light being placed on
Point Calimere.*

*The Port Officer is requested
to submit an estimate of
the cost of the work, in
communication with the
Public Works Dept.*

*Arch P. W. D. H. Ad.
28/7*

26]

Marine Department. 252



h/p

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Read the following paper:—

From the Presidency Port Officer, dated 3rd September 1888

No. *615*
373 G.

*In my letter to Government No. 4, dated 19th July '88,
I pointed out that a light on Point Calimere was
considered desirable, and recommended that it
should be placed on the tripod or Column which
the late Captain Saylor had proposed should
be erected on the point as a land mark.*

*2. Having corresponded with the Public Works
Department on the subject of the Column, I
have come to the conclusion that as the erection
of a tripod or even of a masonry Column would
be a very expensive undertaking, a light iron
mast capable of bearing the weight of a Sixth Order
Light Apparatus would meet the purpose. Such
a mast with a box or Cabin for the light apparatus
I find, can be constructed at the Indian Govt.
Dockyard at Calcutta for about Rs (two) six
hundred. This does not include cost of freight
or expenses connected with the erection at
Calimere of the mast which may be roughly
taken at Rs 1000 in all - perhaps not so much.*

but it is impossible at present to form a nearer estimate.

3. In regard to the light I propose on the arrival of the new 4th Order Light from England which has been ordered for Manapad to transfer the present 6th Order light at that place to Calimere.

4. Huts for two light keepers will be required and the estimate for this work amounts to Rs 1600. I form and this estimate herewith and beg that the sanction of Government may be accorded as follows; viz:-

(a) To the transfer of the 6th Order light from Manapad to Point Calimere.

(b) To the construction at the Government Dockyard, Calcutta, of an iron mast for the same at a cost of Rs 600.

(c) To the construction of quarters for two light keepers at a cost of Rs 1600.

Order, 30 September 1889 No 417

The Presidency Port Officer's proposals are approved.

(True Extract)

Asst Secretary

To The Public Works Deptt with enclosures.
Accountant General
Presidency Port Officer.

J. S. D.

No 28526

2857

PROCEEDINGS OF THE MADRAS GOVERNMENT.

October 11, 1889.

Read the following

From the Superintending Engineer VI Circle.

No. 4662. J. dt 3rd June 1889.

Proceedings of the Marine Department.

No. 417 dt 30th September 1889.

SP

The estimate amounting to Rs 1600 for constructing quarters for 2 light-house keepers at Point Calimere is returned to the Superintending Engineer VI Circle for sanction. 2. The question of providing funds for the work, as shown in the margin, will be considered in the Financial Department.

Rs 1600

Rs 1600

Works 368
Establishment 24
Tools and Plant
Total 1792

To The Superintending Engineer VI Circle with 4 enclosures. P. W. Accounts. Financial Department. Marine Dept. To The Honble the (Mr. J. J. J.) for of Committee.

W. W. B.

5.10.89

Pratt 5.10.89

50 51

CM

To

Proceedings, dated
No.

188

Subject.

5152

SECRETARY
GOVT. OF MADRAS

J-84
11-10-29

CS 5x89
HWR 9x89
RM
x 000

Govt. of 188 | Madras.

To

Sh. P. N. Dept

N^o 1301 Wapn. 587

2423 Ca 17.6.88

2571 Ca 14.7.88

2997 Ca 17.8.88

3493 Wapn. 11.88

583 Ca 17.2.89

2216 Ca 16.5.89

Sub.

(1/10/89)

Proceedings, dated

30791

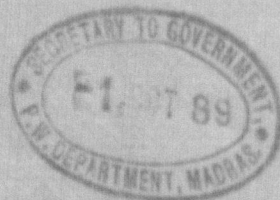
188

No.

417

Subject.

Light keeper's Quarters



*Light keeper's Quarters
at Point Calvo*

2852

52/53

7/11/02

Govt. of Madras

PUBLIC WORKS.

Encl.

G.O. 11 Octr 1889 No 2852

Quarters for light housekeepers at Point Calimere

Let for — returned
to the S E M mile
for sanction, the question
of funds being considered
in the Finl. Dept. —

(58)