

BUILDINGS AND ROADS.  
CIVIL WORKS.

Govt. of 1885 Madras.

PUBLIC WORKS.

Dated October, 10th.

Recd.

Encl.

G.O., 10th Oct. 1885, No. 2365 W.

OCTOBER.

Road from Potinghi to Koraput  
and Bridges on the Potinghi  
Ghat

Estimates for —, sanctioned with remarks.

original estimate for the Potinghi ghât. For this work the total sanction accorded will then stand as follows:—

|                                                     | RS.      |
|-----------------------------------------------------|----------|
| G.O., No. 3255 W., of the 16th November 1883 ... .. | 4,25,391 |
| The two bridges now proposed ... ..                 | 31,190   |
| Total ... ..                                        | 4,56,581 |

3. *New Road.*—The new line from Potinghi to Koraput, the second link in the line of communication between the plains of Vizagapatam and the interior of the Jeypore plateau, apparently follows a track already opened out as a pack-bullock road by the Agency authorities; the first 2 miles or so only of this track being superseded by a favorable diversion 3 miles 2 furlongs in length.

4. The conversion of the existing pack-bullock track into a metalled road, in preference to an altogether new trace, is apparently adopted for the sake of economy. Labor and earthwork will be saved thereby, while the survey and estimating have probably been much easier; but it seems doubtful whether, in a country such as that described, some improvements on the exact alignment of the old track could not have been discovered. The gradients, however, are easy throughout, the steepest being 1 in 20. The Superintending Engineer approves the project as prepared by Mr. Harris, and the alignment may perhaps be accepted without further inquiry.

5. *Width.*—The formation width of the new road is to be 15 feet, of which 12 feet will be metalled. In the opinion of the undersigned, for a first-class metalled and bridged road, a width of 18 feet should be adopted. In the open and on the level, a width of 18 feet will add but a small amount to the cost, and for the tops of high embankments and approaches to bridges, 15 feet is hardly a safe width.

6. *Bridges.*—The iron bridges, four for the new road and two for the ghât, are from designs by Mr. Maylor, of the firm of Peirce, Leslie, and Company of Calicut. They are of the Warren girder type, and similar bridges are said to have answered satisfactorily in Wynaad and on the West Coast. It is apparently intended that this firm should supply them, but the undersigned considers the better course would be to indent on the India Office for Warren girder trusses of the spans required, to have a planked road of given width (15 feet) and to carry a specified load. If this course be adopted, it will not be necessary to have the calculation for these designs checked in the Public Works Workshops, as suggested by the Superintending Engineer.

7. The stone masonry should certainly *not* be plastered, for to plaster stonework simply means to conceal bad work.

8. Splayed wings seem preferable to the long return wings designed for all the bridges, and would be more economical.

(Signed) J. SHAW-STEWART, Colonel, R.E.,  
Chief Engineer.

25th September 1885.

ORDER—dated 10th October 1885, No. 2365 W., Public Works.

The undermentioned estimates are sanctioned:—

|                                       | Amount of Estimate. | Register Number.                  | Classification.                      |
|---------------------------------------|---------------------|-----------------------------------|--------------------------------------|
|                                       | RS.                 |                                   |                                      |
| (1) Road from Potinghi to Koraput.    | 2,72,700            | Provincial No. 142 W. of 1885-86. | } Communications,<br>Original Works. |
| (2) Two bridges on the Potinghi ghât. | 31,190              | Provincial No. 143 W. of 1885-86. |                                      |

2. The second estimate is supplemental to the estimate for the Potinghi ghât, which will now stand at Rs. 4,56,581.

3. The current year's budget grant of Rs. 20,000 for the Potinghi-Koraput road was surrendered in G.O., No. <sup>1533 W.</sup><sub>A</sub>, dated 1st July 1885, and no allotment of funds can be made for the work at present. If possible, however, provision for it will be made in the Provincial budget of 1886-87.

4. The Chief Engineer's remarks should receive attention.

(True Extract.)

(Signed) J. SHAW-STEWART, Colonel, R.E.,  
Secretary to Govt., P.W.D.

To the Superintending Engineer, I Circle, with 26 enclosures.  
,, Examiner, Public Works Accounts, with 2 general abstract estimates.  
,, Financial Department.  
,, Revenue ,,

Exd. E. Fernandez.  
Spare Copies

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Road from Potinghi to Koraput  
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Estimates for —, sanctioned with remarks.

20TH APRIL 1889, No. 167, MARINE.

GOVERNMENT OF MADRAS.  
MARINE DEPARTMENT.

READ—the following paper:—

From Captain H. A. STREET, H.M.'s I.M., Presidency Port Officer, to the  
Chief Secretary to Government, dated Madras, 15th March 1889, No. 109-G.

I have the honor to submit for the information of Government, the accompanying  
report on the state of the ports and lighthouses on the coast between Madras and  
Gopálpur, visited by me during January and February last.

2. I left Madras on the 23rd January and returned on the 10th February, having  
visited all the lighthouses to the north of Madras except Pulicat and Arneghon.

Enclosure.

GOPALPUR.

*Light.*—There are two lights at this port—one on the flagstaff and another at the pier head;  
both were in good order, and are sufficient for the purpose for which they were supplied.

*Pier.*—The special report lately submitted by me respecting this pier contains all I have to  
say regarding it.

*Flagstaff, Flags, Storm Signals, Life-saving Apparatus, spare Stores.*—Were in good condition  
and had been well looked after.

*Port Office and Establishment.*—The office books were up to date. The clerks seemed to  
be acquainted with their work. The establishment is not in excess of requirements.

*Several Port Arrangements.*—(a) Landing and shipping is still carried on from the beach in  
preference to the pier. The cause of this is mentioned in my special report on the pier.

(b) The boats appeared to be in good order, and sufficient in number to meet all ordinary  
requirements of the trade.

(c) House accommodation for the Port officer is much needed. The small pay attached to the  
port will not admit of the Port officer paying any very high rent, and as there is no Government  
building set apart as a residence, he has to content himself with accommodation of a very inferior  
description. This question formed the subject of some correspondence with Government during  
the early part of last year, and after consideration it was decided by Government to take no  
further action in the matter.

CALINGAPATAM.

*Light.*—(a) The country-made lantern in which the lamp is placed is of a very inferior  
description, and the whole arrangement is far from being satisfactory. The expenditure of oil is  
very large, and with no good results. The matter is receiving my attention, and I shall address  
Government in due course respecting the improvements which I consider necessary.

(b) An estimate for a ladder to be attached to the column on the top of which the lantern  
rests, and also for other necessary requirements, has already been submitted for the sanction of  
Government.

*Flagstaff, Flags, Storm Signals.*—Were in good order.

*Port Office.*—The port is under the charge of a Conservator, an old European shipmaster,  
who is also Superintendent of Customs. The office arrangements seemed to be efficient.

*Several Port Arrangements.*—(a) The boats appeared to be in good order, and the number  
sufficient for all requirements.

(b) It was pointed out that a light on the flagstaff would be of great assistance as an  
anchoring mark to vessels approaching the port after dark. This matter will receive my attention  
in due course.

SANTAPILLY LIGHTHOUSE.

(a) Certain improvements suggested by Mr. Chatterton, the Superintendent of Muttam  
Lighthouse, and approved of by me, have been recently effected with excellent results, both in  
respect to the visibility of the light itself and in the consumption of oil. Before these improve-  
ments were carried out, the expenditure of oil was extremely large, and the reports respecting  
the light far from satisfactory. It has also been found possible, since the improvements above  
referred to have been made, to reduce the establishment by one light-keeper.

(b) New quarters for the light-keepers are in course of construction, and pillars to define the limits of the grounds attached to the lighthouse were being erected.

(c) The Superintendent is said to take considerable interest in his work, and seems to have done his best to keep the lighthouse and grounds in proper order. He has had difficulties with the light-keepers, but a better state of discipline now exists, and on the whole I was fairly well satisfied with what I saw.

#### BIMLIPATAM.

No light.

*Flagstaff, Flags, Storm Signals, Life-saving Apparatus.*—Were in a satisfactory state on the whole.

*Port Office and Establishment.*—The work was up to date, and the books well kept. The establishment appeared to be acquainted with their duties.

*Several Port Arrangements.*—The boats seemed to be efficient, the number sufficient for the requirements of the port, and the boatmen to be well under control. I was very well satisfied with all I saw at this port.

#### VIZAGAPATAM.

No light.

*Flagstaff, Flags, Storm Signals, Life-saving Apparatus.*—In good order and well cared for.

*Port Office and Establishment.*—Considerable improvement has been made in respect to the Office arrangements at this port, for I found the books up to date and kept on a fairly good system. The change was effected, I understood, by Mr. Forbes, C.S., when in charge of the Office for some months last year, and the present Port officer has kept matters going, and seems to have his establishment well in hand.

*Several Port Arrangements.*—(a) The boatmen appear to have got out of hand to a great extent, and at times are inclined, so I was told, to be very troublesome. The Reserve Port officer, Mr. Carlyon, who is in charge of the port, has taken the matter up, and is doing his best to place things on a better footing.

(b) A reference was made to me last year respecting the provision of a crane and other appliances for landing heavy weights at this port, so I looked into the question while at Vizagapatam, and as I found that packages of a weight which would require a crane to lift them out of the boat are seldom brought to the port, I do not consider that any action in the matter need be taken at present.

(c) A house at Vizagapatam for the Port officer is much needed. Formerly the Port officer used to reside at Waltair, but Government having lately decided that each Port officer should reside near to his office, the officer now in charge of the Port office, on taking over his duties, found some difficulty in procuring proper accommodation. I think it will be necessary to build a house, as no suitable residence can be obtained at Vizagapatam itself.

#### COCANADA.

*Vakalapudi Lighthouse.*—(a) On my arrival at this port on the 1st February, I landed at Vakalapudi and inspected the lighthouse at that place. The light apparatus was in good order, and due attention appeared to have been paid to the cleanliness and general tidiness of the light-house buildings and grounds.

(b) The quarters for the light-keepers, sanction for which was given in G.O., No. 1569 W., Public Works, dated 10th June 1887, are still in course of erection, and the work seems to be progressing very slowly.

*Flagstaff, Flags, Stores.*—In good order.

*Port Office and Establishment.*—The office arrangements seemed to be conducted on proper lines. The books were up to date, and well kept.

*Boats.*—Sufficient for port requirements. The boatmen seemed fairly well under control.

*Several Port Arrangements.*—(a) The dredger was in working order, and at the time of my visit was being employed on the bar. The Port officer pointed out that much silt had accumulated along the banks of the river in the vicinity of the wharves, and that he was unable at present to take the dredger away from the bar. There is apparently ample work for the employment of two dredgers. Two punts were in course of construction, and will shortly be completed. Two stone boats were lying on the bank of the river, to the utilization of which, as punts, sanction has lately been given.

(b) The wharves with the cranes and shears thereon appeared to be in good order, and sufficient for present requirements.

(c) The steam launch is almost on her last legs, and is too slight for towing purposes. A better class of boat, which could be utilized for towing the mud punts, is much needed; but in the present financial state of the port, no proposal to this end seems practicable.

(d) My attention was drawn to the difficulty experienced by the Captains of vessels at anchor in the roads, the Port officer and the Agents of vessels in distinguishing flags while carrying on communication by such means in consequence of the distance the anchorage is from

the port flagstaff, and the obstruction caused by the haze on a still day. A proposal to meet this difficulty by connecting Vakalapudi lighthouse with the Port office by telephone has since been submitted to Government.

(e) Before leaving Cocanada, I visited the lighthouse on Hope Island, and found all the arrangements there in a satisfactory condition. At certain times during the year, the visibility of the light is seriously affected by the myriads of small insects which, attracted by the light, swarm all round the lamp at night.

(f) The light was originally intended to lead vessels clear of the shoals off Godavari Point, but for this purpose the light at Vakalapudi is a better guide. Hope Island light is only useful to vessels making the coast in its vicinity, and the Port officer at Cocanada is of opinion that a light on the coast in the vicinity of the Sacramento Shoal would be of greater use to coasting vessels. It is my intention to inquire further into this proposal on the Sacramento Shoal being re-surveyed, and should the transfer be found advantageous in the interests of coast navigation, I shall address Government regarding it.

(g) On the whole I was much pleased with all I saw at Cocanada; the efficient state in which I found everything connected with the port reflects, I consider, much credit on Mr. Baker, the Port officer.

#### MASULIPATAM.

*Light.*—In working order.

*Flagstaff, Flags, Storm Signals.*—In working order.

*Port Office and Establishment.*—The arrangements connected with the office were only fairly satisfactory, due to the want of instructions in regard to the manner in which office books should be kept.

*General Port Arrangements.*—(a) Owing to there being no building obtainable for a residence in the vicinity of the landing place, the Port officer has to reside at some considerable distance from his office—about half-an-hour's drive. He, however, has made arrangements for sleeping at his office on occasions of bad weather, or when his work renders his presence on the spot requisite.

(b) The shed sanctioned for this port last year was on the point of being erected.

(c) As a crane is much wanted, I have directed the transfer of a three-ton crane not required at Cocanada.

(d) The Port officer called my attention to the difficulty experienced by cargo boats in keeping their position while waiting outside of the bar for the arrival of a steamer, and he suggested that a couple of buoys with the necessary anchors and chains should be supplied for the purpose of marking the anchorage, and for the boats to make fast to when waiting for a vessel. The matter is under consideration.

*Point Divi Lighthouse.*—(a) I visited the lighthouse during my stay at Masulipatam. Neither the state of the lamps, nor of the lighthouse buildings, reflected much credit on the Superintendent. The loneliness and dreariness of the situation may perhaps have something to do with the apathy exhibited by the man in charge of the lighthouse.

(b) Some improvements to the Superintendent's quarters are necessary, as well as certain repairs to the lighthouse. This matter has already been seen to.

(c) Many complaints have been made of late by the Captains of the different coasting steamers respecting the light, which according to their view is not sufficiently powerful; it is visible in clear weather 14 miles. The question is receiving my attention, and, should I find that a new powerful light is actually necessary, I shall address Government regarding the same in due course.

MADRAS,  
15th March 1889.

(Signed) H. A. STREET, Capt., H.M.'s I.M.,  
Presidency Port Officer.

ORDER—dated 20th April 1889, No. 167, Marine.

Recorded.

(True Extract.)

J. F. PRICE,  
Chief Secretary.

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

Exd. A. Raitt.

Gobt. of (1889) Madras.

MARINE.

*N. 1252 W d/11 "Quincy"*

*Recorded*

*1889*

*1st of 1888 D. 13*

*W*

Issued

Recd.

Encl.

G.O., 20th April 1889, No. 167.

*N. 1252 W d/11 "Quincy" 1889*

APRIL.

*16/6/88 / RH*

Ports and Lighthouses.

Recording the Presidency Port Officer's inspection report of the —, specified, on the coast between Madras and Gopálpur.

*Lt. I Birch*

*With order*