

(1) Number of pages \_\_\_\_\_

(2) Date of repair \_\_\_\_\_

(3) Initials of the Referencer \_\_\_\_\_

# MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

|              |               |
|--------------|---------------|
| G.O. No. 828 | Press<br>Mis. |
| 486-87       |               |
| Dated 20 . 3 | 1877 .        |

Not to be folded or roughly handled

No. 486. Read the following letter from the Acting Superintending Engineer, 7th Division, to the Secretary to Government, Public Works Department, dated Camp at Cochin, 28th February 1871, No. 247 :—

WITH reference to G. O., No. 1,162, dated 3rd May 1870, I have the honour to

One Plan.

report that I have inspected the road from Mangalore to the head of the Kode-

kul, Charmady, or Boond Ghaut. The whole road throughout its length was in very fair order, and the maintenance grant appears to me to have been carefully and judiciously expended. In one stage alone, as I marched along the road, I counted 116 laden carts, and I met also a considerable number of pack-bullocks, and on returning from the ghaut, though heavy rain had fallen the previous day, I counted forty-one carts on their way up the ghaut. As the season advances I have no doubt the traffic will increase.

2. The ghaut requires widening in a few places, which can be done as soon as the toll collections on the ghaut amount to a sufficient sum to allow of the necessary blasting operations being commenced. It would be impossible to undertake this work from the present maintenance grant.

3. The Beltangady bridge repairs have been already taken in hand on sanctioned estimate—*vide* G. O., No. 345, of 4th February 1871.

4. The Moondajee platform bridge will also be repaired as early as possible.

5. The Nedgul bridge has been quite lately replanked, and is in fair order.

6. I inspected the Poonjuleuttah masonry bridge; it consists of two laterite segmental arches of 25 feet span, which exhibit bad cracks, as shown in enclosed plan. I closely examined the materials and the workmanship, both appear to me to be good of their kind, and the foundations show no signs of sinking, nor is there any sign of scour in the bed of the river under the arches. The cracks gradually cease as they approach the piers in the centre, and I attribute them entirely to the abutments and wings having been unprovided with buttresses to resist the thrust of the earth in the approaches at both ends of the bridge, which are some 17 feet in height. On inquiry I found that after the bridge had been built it was allowed to remain without the earthen approaches for one season, and at the end of the season was intact; it was not until after the approaches had been added that the cracks took place. I am informed that great care was taken in forming these approaches that they were filled in layers, saturated with water and well tamped; but I have no doubt they eventually absorbed a large quantity of water during the early rains and the earth swelled, resulting in cracking the masonry as shown in the plan.

7. I have directed the Range Officer to submit an estimate for pulling down the cracked portion of the arches and rebuilding it notched into the remaining portion, which is to be reduced to a uniform width, the rebuilt portion being slightly wider than that shown as separated by the cracks. Although a slight crack will be certain again to show on the final settlement of the new work, I do not apprehend such will be of any consequence. The estimate will also include the buttresses I deem requisite to the abutments and wing-walls.

8. The two minor bridges, stated to have disappeared by the Collector, were washed away some years ago, and no funds have been available for their reconstruction. These bridges are not, in my opinion, very urgently required.

9. I have inspected part of the Munzerabad line, especially one portion referred to by the Collector, which is described as being bushed and boughed. This has been properly repaired, and every where I saw that the maintenance grant was being properly expended in current repairs, such as necessary bridge plankings and metalling. This line of road has never been thoroughly metalled, and like most of the Canara roads is only a fair weather road; much has been done to improve the line from time to time by diversions with reduced gradients, but there is still much room for improvement, and it is hoped that the tolls now established in this district on the ghaut lines will by degrees materially assist in accomplishing what remains to be done.

10. I have inspected also a part of the Coorg Ghaut Road, via Sumpajee. The road is in fair order, and simply requires an increased maintenance to make it quite equal to the Coorg roads.

11. In reference to bamboo rafters and reepers having been used in the roofs of the Sub-Jails and their subsidiary buildings lately constructed in the district, I find that these materials are named in the estimates framed with the view of reducing the cost of the buildings as much as possible. I have inspected all these buildings, and think it advisable that timber rafters and reepers should be used instead of bamboos in future, and I have directed revised estimates to be submitted for such buildings as have not yet been completed.

12. There can be no doubt that a bridge is much required on the Koomaradary river at Oopinangady; as there is little likelihood of Imperial funds being available it would be useless to submit a plan and estimate for the work at present. The Range Officer has, however, been directed to submit a plan and estimate for a stone causeway for improving the ford during the fine weather months of the year. The plans for working an improved description of ferry for the rainy months have not been forwarded to me. I am therefore unable to express any opinion on the subject, beyond that I doubt much if any plan, involving iron ropes anchored in the river, would be likely to be efficient in the Koomaradary, which when in flood is generally laden with trees and drift wood.

No. 487.

ORDER THEREON, 20th March 1871, No. 828.

CIVIL WORKS, No. 25.

COMMUNICATED to the Board of Revenue with reference to their Proceedings, dated 17th February 1870,

No. 1,081, recorded in G. O., No. 1,162, dated 3rd May 1870.

2. The Government observe that the Superintending Engineer has taken the necessary steps to remedy, as far as possible, the condition of the Public Works in the South Canara District referred to by the Acting Collector in his annual report

on the operations of the Public Works Department for the year 1868-69. The estimates which Colonel Farewell reports having called for should be laid before Government in due course.

(True Extract.)

Colonel, R.E.,

Secretary to Government.

To the Acting Superintending Engineer, 7th Division.

„ Board of Revenue.

„ Revenue Department.

No. 247

Sups Engineer's Office,  
7th Division

30 Camp Cochin 25th Feb/71

From,

Lieut Colonel W. Farwell S.C.

Ag Sups Engineer, 7th Div

To,

The Secretary to Government,  
Dept. Public Works,  
Madras.

Sir,

Enclosure  
1 Plain.

With reference to G.O. No. 1162 dated 3rd May 1870 I have the honor to report that I have inspected the road from Mangalore to the head of the Kodakul, Charnady, or Band Ghant. The whole road throughout its ~~entire~~ length was in very fair order, and the Maintenance Grant appears to me to have been carefully & judiciously expended. In one stage alone as I marched along the road I counted 116 laden Carts and I met also a considerable number of pack bullocks, and on returning from the Ghant through heavy rain had fallen the previous day I counted 41 Carts on their way.

way up the Gharb. As the season advances I have no doubt the traffic will increase -

2 The Gharb requires widening in a few places which can be done as soon as the Toll Collections on the Gharb amount to a sufficient sum to allow of the necessary blasting operations being commenced. It would be impossible to undertake this work from the present Maintenance Grant -

3 The Beltanady Bridge repairs have been already taken in hand on sanctioned Estimate vide G.O. No 345 of 4<sup>th</sup> February 1871 -

4 The Moondajer Platform Bridge will also be repaired as early as possible -

5 The Bridget Bridge has been quite lately replanted and is in fair order -

6 I inspected the Poonjilentah Masany Bridge, it consists of two laterite segmental arches of 25 feet span which exhibit bad cracks as shown in enclosed Plan. I closely

examined the materials and the workmanship, both appear to me to be good of their kind, and the foundations shew no signs of sinking nor is there any sign of scour in the bed of the river under the arches - The cracks gradually increase as they approach the piers in the Centre and I attribute them entirely to the abutments and wings having been unprovided with buttresses to resist the thrust of the earth in the approaches at both ends of the Bridge which are some 17 feet in height - On inquiry I found that after the Bridge had been built it was allowed to remain without the earthen approaches for one season and at the end of the season was intact, it was not until after the approaches had been added that the cracks had been added that the cracks took place - I am informed that great care was taken in forming these approaches that they were filled in layers saturated with water & well tamped but I have no doubt they eventually absorbed a

a large quantity of water during the early rains and the earth swelled, resulting in cracking the Masonry as shown in the Plan -

7 I have directed the Range Officer to submit an estimate for pulling down the cracked portion of the arches & rebuilding it notched into the remaining portion which is to be reduced to a uniform width, the rebuilt portion being slightly wider than that shown as separated by the cracks. Although a slight crack will be certain again to show on the final settlement of the new work I do not apprehend such will be of any consequence. The estimate will also include the buttresses I deem requisite to the abutments and wing walls -

8 The two Minor Bridges stated to have disappeared by the Collector were washed away some years ago and no funds have been available for their reconstruction. These Bridges are not in my opinion very urgently required

required -

9 I have inspected part of the Muzerabad line, especially one portion referred to by the Collector which he described as being bushed & boughed - This has been properly repaired and everywhere I saw that the Maintenance Grant was being properly expended in current repairs, such as, necessary Bridge Plankings & installing. This line of road has never been thoroughly installed, and like most of the Canara Roads is only a fair weather Road; much has been done to improve the line from time to time by diversions with reduced gradients but there is still much room for improvement, and it is hoped that the Fds now established in this District on the Ghant lines will by degrees materially assist in accomplishing what remains to be done -

10 I have inspected also a part of the Poor Ghant Road via Sumpajee the

The Road is in fair order and simply requires an increased maintenance to make it quite equal to the Coorg Roads -

11 In reference to Bamboo Rafters & Beams having been used in the roofs of the Sub-jails & their subsidiary Buildings lately constructed in the District I find that these materials are named in the Estimates framed with the view of reducing the cost of the Buildings as much as possible. I have inspected all these Buildings and think it advisable that Timber Rafters & Beams should be used instead of Bamboos in future and I have directed Revised Estimates to be submitted for such Buildings as have not yet been completed.

12 There can be no doubt that a Bridge is much required on the Koomaradury River at Sopimangady, as there is little likelihood of Imperial Funds being available it would be useless to submit a Plan & Estimate for the work at present - The Range

Officer has however been directed to submit a Plan & Estimate for a Stone Causeway for improving the ford during the fine weather of the year - The plans for working an improved description of ferry for the rainy months have not been forwarded to me - I am therefore unable to express any opinion on the subject beyond that I doubt much if any plan involving Iron ropes anchored in the river would be likely to be efficient in the Koomaradury which when in flood is generally laden with trees & drift wood -

I have the honor to be,  
Sir,  
Your most obedient Servant.

W. H. A. A. A.

Ag. Secy. Ry. & P. & G.

S. H.

Cur No 828 Public Works Department

Proceedings of the Madras Government

Read the following

From

The Superintending Engineer  
of the 7th Division

Communicated to  
the Board of Revenue  
with reference to their  
Proceedings dated 17th  
February 1870 No. 1081  
recorded in L. R. No. 1162  
dated 3rd May 1870.

The Govt. observed  
that the Superintending  
has taken the necessary  
steps to remedy as far as  
possible, the conditions  
of the public works in the  
South Canara District  
referred to by the Acting  
Collector.

N.

Cur No 828 Public Works Department  
No. 828-20-11-95-96

1871  
No. 1081  
The Superintending Engineer

Secretary to Govt.  
Madras

Recd. 28 July 70  
No. 1081

Enclosure (11)  
with reference to the  
Report on the progress  
of the works in the  
South Canara District  
No. 1082 of 3rd May 1870

No. 828-20-11-95-96

No 486

No 10-11-95-96

Collector in his annual  
report on the operations  
of the Public Works Dep.  
for the year 1868/69. The  
estimates which Colonel  
Garewell reports having  
called for should be laid  
before Govt in due course.

and a number of other  
important questions  
connected with the  
public works of the  
Colonial Government  
should be brought before  
the House of Assembly  
in due season. It is  
also to be observed  
that the estimates for  
the year 1869/70 have  
not yet been submitted  
to the Governor for  
his consideration.

*[Signature]*

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The Sup<sup>r</sup> Cong<sup>y</sup> &  
32 of Rev.  
Rev. Sept<sup>r</sup>

1/2 7058

vt. of 1871 Windsor.

PUBLIC WORKS.

*to the Superintendent of Engrs  
7th Division*

Page 1

Page 1

Page 1

G. O. 20 miles No. 828.

No. 481-487

Public Works. Letter from the  
Chief of the 7th Division reporting in-  
formation of certain Public  
works in the South Province  
sent to the Board of  
Revenue with remarks.