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Date [illegible] 5-8-37
Initials of Reference.

M.R.O. 1—[illegible]

MADRAS RECORD OFFICE.

Government of Madras.

[illegible] DEPARTMENT.

G.O. No. [illegible] Press
Mis.

Dated [illegible] 18[illegible].

Not to be folded or roughly handled

Fort Saint George, Public Works Consultation of 8th September 1857.

No. 64. Read the following letter from Colonel C. E. FABER, Chief Engineer; to H. FORBES, Esq., Acting Secretary to Government, dated 12th August 1857, No. 2868.

SIR,

1. With reference to Extract Minutes Consultation, No. 1260, dated 29th June last, I have the honor to forward copy of a further more detailed Report, No. 172, dated 9th Ultimo* from the District Engineer of Canara, on the several Projects noticed in the Minute of the Right Honorable the Governor, communicated to the Central office with Extract Minutes Consultation, No. 463, dated 13th March last.

* Received 24th Ultimo.

2. The paras. of the Minute, with observations on the same, are entered in succession as follows :—

Para. 152. Davamunny Ghaut.

The points noticed by the District Engineer are :—

I. The position, and length of the Davamunny Ghaut.

II. Its importance.

III. The nature of the materials for metalling, and repairing the road; and the difficulty experienced in getting work people to break the harder, and better stone.

IV. The traffic on the line, which from 1st April 1856, to 1st April 1857, is given at 29,814 carts, or a monthly average of nearly 2,500; as however for 5 months in the year during the rainy season, there is but little traffic, 100 carts may fairly be assumed as the daily average during the remaining 7 months.

V. The careful attention paid to the monsoon repairs.

3. Para. 154. Kutgul on the Tuddry river and Port of Tuddry.

I. The District Engineer from memory gives a marginal sketch, showing the positions of the Salt Cotaurs, and the proposed Quay on the Tuddry river.

II. Since the receipt of the District Engineer's letter, he has been requested to detail Sub Engineer Boesinger to prepare the necessary plans and estimates for improving the navigation of the river, and for building a suitable Quay.

III. Kutgul, it is observed, is much resorted to as a halting place, from its affording more space grazing ground, and water than can be found either at the foot of the Davamunny Ghaut, or the Town of Coompta. Traders also find it convenient to engage boats there for conveying their goods to the ports of Coompta and Tuddry receiving back by them, loads of salt, and salt-fish, for their return journey inland.

The District Engineer observes, that he has been unable to obtain any return of the trade at Kutgul.

4. Para. 157 to 186. Respecting generally Sedashegur as a Port; and the harbour of Tuddry, will it is believed, as noticed in my letter of the 18th June last, be replied to principally by Colonel Cotton.

5. Para. 165. Baitcool Bay.

The District Engineer observes, that at high water, vessels of the largest size in cargo might ride in this Bay, the depth in some places even exceeding that noted by the Right Honorable the Governor. The submission of plans and estimates for improving the harbour is to be delayed until Colonel Cotton furnishes his report.

6. Para 182. Small rocks in Baitcool Bay.

The District Engineer states, that in old Portuguese work on the Western Coast, notices the existence of one rock in the Bay, but its position is not known to the Fishermen, or Captains of the Native merchant Craft, and Lieutenant Taylor of the Surveying Vessel " Pownah" failed to discover it, that Officer however in his future Surveying operations, intends to make a strict search for it.

7. Para. 185. Tuddry Harbour.

I. It is observed, that early in the year 1855, Messrs. Brice and Co. turned their attention to Tuddry, as a Port for vessels of a larger size than those now visiting that part of the coast, and considered, that it would prove to be accessible during the south west monsoon, in this latter opinion however, it appears that Lieutenant Taylor does not coincide.

II. Respecting the erection of a Light House, the District Engineer observes, that a very favorable site for a column presents itself on the Hills north of Tuddry, and in recommending the removal of the one at Coompta, which has been condemned as useless, he proposes to submit a project for its demolition by Gunpowder, at a cost probably of Rupees 100, and to devote the proceeds of the sale at auction, of the materials, towards erecting the column north of Tuddry, for which he also proposes to submit a Plan and Estimate.

III. Regarding the mooring Buoys proposed, the District Engineer notices, that the description shown in No. 4 in Plate 1 of the Pamphlet on Mitchell's patent, is well adapted to answer the purpose, and I would suggest, that Lieutenant Goddard be directed to at once submit his estimate for the materials that would be required, leaving the prices to be furnished by the Marine Board.

IV. An estimate for the removal of the rocks will, it is observed, be submitted immediately the necessary information regarding them has been obtained.

V. The District Engineer's attention will be again called to paras. 163 and 188, referring to the approaches to the Tuddry Harbour from the Dharwar District, and to the losses that have been sustained by the flooding of the country between Coompta and Honore, but as these subjects will require a good deal of investigation, some time must necessarily elapse before the required information can be furnished.

8. Para. 189. Canal along the coast between Coompta and Honore.

The plans and estimates for this Canal are under preparation, and are to be submitted before October next.

9. Para 201. Honore Light House.

The District Engineer refers to the proposed Light House at Tuddry, and notices, that he is in communication which Lieutenant Taylor regarding one at Honore.

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The mouth of this Harbour is stated to be still moving to the northward, and to be in a worse state than when inspected by the Right Honorable the Governor, a sketch of the Harbour is to be submitted after the monsoon, showing its present position as compared with that laid down in the surveys of preceding years, but as observed in my letter of the 18th June last, paras. 208 to 214, are to be replied to by Colonel Cotton.

11. Para. 214. On the facility of constructing a Coast Canal.

The portion of the Canal between Tuddry and Coompta has already been provided for (Item 398, in Statement 2, of Budget of 1857-58) plans and estimates for the portions from Coompta to Honore, and from Coondapore to Barcoor are under preparation, and arrangements in communication with the District Engineer of Malabar, are being made, for investigating the project for a Canal to connect Mangalore and Cannanore.

12. Para. 220. Improvements to the Light House at Mangalore.

The District Engineer reports, that he is preparing an estimate for an Iron railing, and covering, to protect the lantern, but does not recommend the work, considering it likely to endanger the structure, on this point, an opinion can only be given by the local Officers; and Lieutenant Goddard will be requested to explain more fully, how the proposed additions are likely to have the effect he anticipates.

13. Para. 226. Munzerabad Ghaut.

I. The conduct of Mr. Boesinger is here noticed in connection with the bridges on this Ghaut, the destruction of which was reported to Government, in my letter No. 1545, dated 26th June last, but the subject having been disposed of in Extract Minutes Consultation, No. 1430, dated 25th Ultimo, no further remark is called for, beyond observing, that every precaution will be taken to secure the bridges from further injury.

II. A report on the ruins of Hullabede noticed by the Right Honorable the Governor in the same para. is under preparation.

14. After noticing that particular attention will be paid to the points referred to by the Right Honorable the Governor, from para. 229, the District Engineer closes his report with a few observations on para. 233, regarding the nature of the soil in the Canara District, and its capabilities of being cultivated.

15. In his letter No. 173, dated 13th Ultimo, with reference to Extract Minutes Consultation No. 1260, dated 29th June last, the District Engineer states, that a press of business has delayed the preparation of a plan for a Traveller's Bungalow at Gairsappa, but that the same will be submitted for sanction in the course of the current month.

Letter from Lieutenant J. GODDARD, District Engineer of Canara; to Colonel C. E. FABER, Chief Engineer, dated Mangalore, 9th July 1857, No. 172.

SIR,

1. In obedience to the orders conveyed in Chief Engineer's Resolution* No. 1737, of the 3rd Instant received yesterday, I have the honor to submit a revised copy of my letter† No. 479 of the 6th April.

Para. 152. The scenery about Devamunny is very beautiful, and the Pass itself is a good Engineering work, unfortunately the materials for road making are not of superior quality, and the road way suffers much from the heavy traffic.

2. The Devamunny ghaut, is that portion of the road leading from the Dharwar frontier to the Seaport town of Coomptah, by which the discent from the summit of the ghaut range at Sircy to the low country is accomplished. The length of the ghaut itself is 5 miles, more or less.

The Government are already well aware of the importance of this line, from the very frequent reports concerning it, and a proof of its recognized importance, is the liberal grants existing for its maintenance.

The nature of the material obtainable for the metalling and repair of this road, was investigated by the Right Honorable the Governor during his tour of inspection, and I regret to say, that the material did not meet his approval.

The material obtainable for the repair of this road is stone of two description. The one of a very friable nature, and the other just the contrary.

The former is readily and willingly worked and broken by the coolies on the road, and the latter they strongly object to work or to break, stating, that the work is too hard for them and that they will quit the work if we persist in obliging them to use the hard stone. Hence we are obliged to do the best we can under the circumstances, and use a large proportion of the inferior, and a small proportion of the superior materials.

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* Calling for more detailed information required by Government regarding the necessity for buoying out the Harbour at Tuddry and the removal of the rocks which are found in it.

† Submitting notes upon paras. 152, 154, 165, 182, 189, 201, 208, 214, 220, 226, 229, and 233.

This is much to be regretted, but all our endeavours to mend matters have proved ineffectual. To Lieutenant Haukin, the Officer in charge, great credit is due for exertions to get this road into the best possible order.

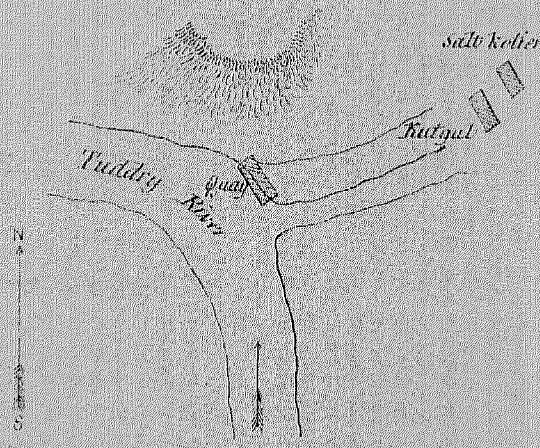
‡ Carts—29,814 from 1st April 1856, to April 1857.

The traffic on this road is exemplified by the traffic return noted in the margin.‡ The traffic continues for 7 months in the year, and is *incessant.* Day and night the bullocks and carts are travelling up and down this ghaut, and this in a great measure prevents our working parties from executing repairs with the despatch which would exist under more favorable circumstances.

During the prevalence of the monsoon, the road is continually looked after by parties appointed to certain portions of it, and every means taken for maintaining it in good order.

Para. 154. Kutgul is a small shipping place on the Tuddry river, which is capable of considerable improvement, as also is the navigation of the river both above and below, it is 18 miles from the port of Tuddry where large cotton screws are being erected by Mr. Brice, a merchant of talent and enterprize.

3. The Right Honorable the Governor calls attention to the necessity of improving this station, and I much regret, that it is at present out of my power to fully do justice to this important entrepot.



A sketch of the river at this point [from memory] is noted in the margin, with the proposed site of the Quay.

I am at present unable to detail any Officer to prepair a survey and sections of the river at this point, and the Overseer in charge is unable to survey ; hence the matter is at present in abeyance, but at the first opportunity, I shall provide myself with Plans and Sections, and design a Quay for this locality, as it is a place of very great importance. No report of the trade at this point is obtainable by me, or it would be inserted in the margin.

I much regret this omission. The trade here arises from the insufficiency of camping and grazing ground, and water, to be found both at the foot of the Devamunny ghaut, and the town of Coomptah which inconveniences are avoided by drivers, by engaging boats at Kutgul to convey their goods from the foot of the ghaut to Coomptah, or Tuddry as the case may be. They then return up the ghaut lightly loaded with salt and salt-fish, which the boats taking their goods from them, bring up on speculation from the coast, and so to Dharwar &c. The up ghaut traffic is not universal.

Para. 165. The soundings would permit as deep as 28 feet in Baitcool Bay.

4. At high water, vessels of the largest size [the great eastern] in cargo might ride here as in some places, the depth even exceeds the depth noted by His Lordship, I understand it amount nearly 31 feet.

The importance of the harbour at Baitcool has been recognized by Government, and a plan and estimate for improving and completing it is to be submitted after a report to be furnished by Colonel A. Cotton, who visited it in the "suit" of the Right Honorable the Governor.

Para. 182. Some small rocks in the Baitcool Bay might easily be blasted.

5. Only one rock as far as I am aware is supposed to exist in Baitcool harbour, and this supposition is due to a notice of this rock in an old Portuguese work on the Western Coast.

The Native Merchants, Captains, and Fishermen, are not aware of the existence of this rock, and cannot point out any rumoured rock in this Bay. Lieutenant Taylor of the Surveying Vessel "Pownah" failed to discover the rock, but it is his intention when surveying this part of the coast, to establish a strict search for it on a future occasion.

Para. 185. Notices that the attention of the District Engineer of Canara should be at once called to this fact, and to the destruction of the rocks, and also to the necessity for Buoys in the Tuddry harbour.

* Vide para. 1 of this report.

6. The reason of my having neglected to notice para. 185, of the Extract Minutes Consultation No. 463 of the 13th March 1857 was, that this para. was not noted for report by me in Chief Engineer's resolution* No. 11,319 of the 27th March 1857, and I now hasten to furnish the requisite remarks upon Tuddry, so early as the year 1855 [the early part of it] Messrs. Brice and Co., had turned their attention to Tuddry, as a port very favorable for vessels of a larger size than those now visiting this part of the coast, and not only this, but they deemed it would prove to be accessible during the south-west monsoon. Lieutenant Taylor of the Indian Navy has however shewn us, that although we may render it a very good port for *large* vessels, yet, we cannot hope to render it accessible during the prevalence of the south-west monsoon.

The suggestions of Messrs. Brice and Co., are two in number ; first, that a Light House or Flagstaff should be erected on the hills, north of the harbour ; and secondly, that six mooring buoys should be laid down in the entrance channel. I consider that Light House ought to be erected here, and that at Coompta removed, as the latter is utterly useless as *proved* by Seafaring men, and a very favorable site for a column presents itself on the hills north of Tuddry. I pointed this out to His Lordship when in Canara, and Lieutenant Taylor I. N. entered into detail of the in-utility of the present Light, and I would be very happy to receive early instructions to prepare a plan and estimate for a column at Tuddry.

Should Government think fit, the Coompta column might be demolished, and its debris sold at auction, the profits arising from the sale to be deducted out of the amount of the Tuddry estimate.

I shall, if ordered, submit a project for the demolition of the Coompta column by Gunpowder, at a cost less than 100 Rupees, I feel satisfied including the removal of the lantern.

A Flagstaff is not as yet required, but when it is, a plan and estimate will be submitted in accordance with the wishes of Government.

As regards the second proposition of Messrs. Brice and Co., it is apparent, that mooring buoys will be equally as useful to the small craft now in use on the coast, as they would eventually be to the large vessels proposed to be brought into use by Messrs. Brice and Co., and it appears, that benefit would accrue by the immediate laying down of buoys in the entrance Channel.

Six screw moorings of the dimensions shewn in No. 4 in Plate 1 of the Pamphlet, or Mitchel's patent, and furnished with the requisite lengths of 1' 4" chains would appear to be of a nature likely to benefit craft in the Tuddry river.

The screws would be inserted about 15' and be secured by connecting chains.

If ordered to prepare a plan and estimate for laying down the moorings buoys, I should be glad to have my instructions at an early date, as data of prices is not obtainable on the spot, and a good deal of time will be lost in correspondence with individuals in search of the requisite information in detail, of every item in connexion with the screw moorings.

These mooring will also be available for warping in and out of the river, which will be an important item in their list of benefits they afford to the Harbour at Tuddry.

An estimate for the removal of the rocks will be submitted as soon as I have an opportunity of detailing an officer to lay them down in a plan, and I, after I have myself personally duly inspected their size and nature.

Para. 189. A Canal might without difficulty be made between Coompta and Honore, and would prove of great service.

7. The plan and estimate for this Canal is under preparation, and will be submitted before October next.

Para. 201. A Light House is required at Honore as to the north of the Harbour there are some very dangerous rocks and shoals.

8. I would respectfully request to be permitted to remark, that the Coompta Light House, is intended to secure the safety of vessels from any dangers present on this part of this coast, but it is reported by Seafaring men to be utterly useless. Tuddry is the port fixed by Lieutenant Taylor, and other nautical men, as a most suitable for a light, and I have requested that officer to oblige me with his opinion on the subject illustrated by a chart of this coast.

Para. 208. Intimates the inspection of Harbour at Manglore, and that much discussion about the improvement of the same has taken place with Colonel Cotton.

9. The mouth of the Harbour is still moving to the northward, and is in a worse state than when inspected by the Right Honorable the Governor; a sketch of this will be made after the monsoon, shewing its present position as compared with that laid down in the surveys of preceding years.

Para. 214. Notices the practicability of Coast Canal.

10. I am happy to be able to report, that one portion of the Coast Canal ordered by his Lordship is now under construction, viz. that portion from Tuddry to Coompta. Plans and estimates for portions of Canal from Coompta to Honore, and from Cooudapoor to Barcoor, are under preparation, and initiatory steps are being taken in the matter of a Canal to connect Mangalore and Cannanore.

I hope to meet Lieutenant Bean at Kavay in a few days, in order to discuss this Canal with him, and a report will immediately after be submitted to Government on this subject by Lieutenant Bean.

Para. 220. The lantern on the Light House at Mangalore has been placed on the top of pillar without any protection whatever, some discription of covering and support should be made around it.

11. This order has been attended to, and an estimate for an iron railing round the lantern is under preparation.

I fear to submit an estimate for a covering, as the column and platfrom are not sufficiently stable, to enable me with confidence to carry out his Lordship's orders rather than disobey orders. I am preparing a plan and estimate for a covering to be supported by stanchions; but I at the same time request his Lordship's indulgence to be permitted to withdraw the same, as rendering the whole fabric likely to fall.

Para. 226. States, that a portion of Munzerabad ghaut was visited by the Right Honorable the Governor which appeared to be an equally fine piece of Engineering with the Sumpajee and its beautiful ruins of Allabede, another of those relics of ancient days which should not be allowed to disappear.

12. Mr. Boesinger has with infinite zeal completed the bridging of this ghaut during the past season, but I regret to report, that the incompetency of his Assistant has entailed the damage by floods of some of the bridges.

Mr. Boesinger is, I opine, in no way to blame; and I trust that Government may be pursuaded, that he has not been guilty of want of caution, but unfortunate in his assistances.

Early steps will be taken to secure the bridges from further injury.

With reference to the concluding part of this para. I have the honor to state, that a report upon "Ruins" &c. in Canara is under preparation.

Para. 229. Closes with few general remarks on particular points, which the Right Honorable Governor wishes to specify.

13. I shall pay particular attention to the remarks of His Lordship, and note the works which it is his desire should be undertaken in Canara.

14. The soil in Canara is sand in low lying land, and red soil elsewhere.

Para. 233. Though the soil vary greatly in different parts of the country, in some there appearing to be little else but sand, in others gravel, here a fine loam, and there the black Cotton soil, yet if water be only at hand, they all produce of course in varied quantities harvest that fully repay the cultivator.

Black soil is not any where found in the District, and gravel is not very general. During the pravelence of the monsoon, water is at hand in abundance every where, and cultivation is carried on, all over the country.

During the dry season, water only occurs in certain localities, and is then turned to account in Betel, Cardamum, and Pepper gardens, which occur above ghaut, and here and there in Sugar plantation below ghaut. In the low country, however as a rule, a want of water is experienced towards the end of the dry season in many places. Water appears not be stored in Canara, owing to the soil invariably being porus, and we are not acquainted with any material obtainable in Canara for making clay *puddle* to prevent filtration, so that tanks are not found here.

Wells for cultivation are not in general use, owing to the great depth below the ground of the surface of the water during the dry season, and the consequent expense of raising water for cultivation.

No. 65. ORDER THEREON, No. 1699; dated 8th September 1857.

With reference to Extract from the Minutes of Consultation of the 29th June 1857, No. 1260, the Chief Engineer submits a more detailed report from Lieutenant Goddard, District Engineer of Canara, on the projects noticed in certain paras. of the Minute of the Right Honorable the Governor, dated 24th January, and communicated to the Chief Engineer on the 13th March last.

2. There is not much in Lieutenant Goddard's report which calls for orders, as plans and estimates for some of the projects noticed by the Right Honorable the Governor are already in course of preparation, and plans and estimates, for other works will be submitted after Colonel Cotton has reported upon them. The only points therefore on which orders appear necessary, are the following—

1st. The difficulty of getting labourers to use the harder and moresu bstantial material, referred to by the District Engineer, in the repair of the *Devamany ghaut*. It is stated that while the Coolies willingly work with the more friable material procurable, they strongly object to the use of the hard stone, in consequence of the difficulty of breaking it; and that they threaten to quit their work, if peremptorily required to use the superior material. The Government are of opinion that the only way of overcoming the difficulty, is to raise the rates of hire, and thus to compensate the Coolies for the additional labor which the use of the harder material may impose on them. It is but fair that additional inducements should be offered where more than ordinary labor is required; and economy, it may be observed, will be secured, in the end, by the formation of a more durable class of road.

2ndly. Erection of a Light House at Tuddree. The District Engineer suggests that the Light House at Coompta, which has been found useless by sea-faring men, should be removed, and that one should be erected on the Hills north of Tuddree, as presenting an eligible site for a column. Lieutenant Goddard will be instructed to submit a plan and estimate for the construction of a column for the Tuddree light, at the site proposed; but it appears to Government that it would be better to leave the column at Coompta untouched for the present, until that at Tuddree is completed. As regards the mooring Buoys of the description proposed for the Tuddree Harbour, that part of Lieutenant Goddard's report which relates to the subject, will be referred for consideration in the Marine Department.

3. The report on the ruins of Hullabede which the Chief Engineer states is under preparation, need not be proceeded with, as that place is in the Territory of His Highness the Rajah of Mysore.

(Signed) H. FORBES,

Acting Secretary to Government.

Central Office of Pub. Works
Fort St. George 12th August 1857.
No. 2868.

General Works in the Canara District

From
The Chief Engineer
To
The Secretary to Government
Public Works Department

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† recd. 24th Ultimo

1 Enclosure
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The points noticed by the District Engineer are.—

I The position, and length of the Davamunny Ghaut.—

II Its importance

III The nature of the material for

metalling, and repairing the road, and the difficulty experienced in getting work people to break the harder, and better stone.—

IV. The traffic on the line, which from 1st April 1856 to 1st April 1857 is given at 29814 Carts, or a Monthly average of nearly 2,500; as however for 5 Months in the Year during the rainy Season, there is but little traffic, 100 Carts may fairly be assumed as the daily average during the remaining 7 Months.—

V. The careful attention paid to the Monsoon repairs.—

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I. The District Engineer from Memory gives a Marginal Sketch, showing the positions of the Salt Cotaurs, and the proposed Quay on the Tuddry river.—

II. Since the receipt of the District Engineer's letter, he has been requested to detail Sub Engineer Röesinger to prepare the necessary plans and Estimates for improving the Navigation of the river, and for building a suitable Quay.—

III. Hulgul, it is observed, is much resorted to as a halting place, from its affording more space grazing ground, and water than can be found either at the foot of the Davamunny Ghaut, or the town of Coomptah.- Traders also find it convenient to engage boats there for conveying their goods to the Ports of Coomptah and Tuddree, receiving back by them, loads of Salt, and Salt fish for their return journey inland.—

The District Engineer Observes, that he has been unable to obtain any returns of the trade at Hulgul.—

4. Para: 157 to 186. Respecting generally Sedashegur as a Port, and the harbour of Tuddree, will it is believed, as noticed in my letter of the 18th June last, be replied to principally by Colonel Cotton.—

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Lieutenant Taylor of the Surveying Vessel "Pownah" failed to discover it, that Officer however in his future Surveying operations, intends to make a strict Search for it.—

7. Para: 185. Tuddree Harbour.—

I. It is observed, that early in the Year 1855, Messrs. Brice and Co. turned their attention to Tuddree, as a Port for Vessels of a larger size than those now visiting that part of the Coast, and Considered, that it would prove to be accessible during the South West Monsoon, in this latter opinion however, it appears that Lieutenant Taylor does not coincide.—

II. Respecting the erection of a Light House, the District Engineer Observes, that a very favorable site for a Column presents itself on the Hills North of Tuddree, and in recommending the removal of the one at Coompta, which has been condemned as useless, he proposes to Submit a project for its demolition by Gunpowder, at a Cost probably of Rupees 100, and to devote the proceeds of the sale at Auction, of the Materials, towards erecting the Column North of Tuddree, for which he also proposes to submit a Plan and Estimate.—

Has Lt. Taylor's opinion been asked about this?

III. Regarding the mooring buoys proposed, the District Engineer notices, that the description shown in No. 4. in plate 1 of the Pamphlet on Mitchell's patent, is well adapted to answer the purpose, and I would suggest, that Lieutenant Goddard be directed to at once submit his Estimates for the Materials that would be required, leaving the prices to be furnished by the Marine Board.—

IV An Estimate for the removal of the rocks will it is Observed, be submitted immediately the necessary information regarding them has been obtained.—

V The District Engineer's attention will be again called to Paras: 163 and 188, referring to the approaches to the Tuddree Harbour from the Dharwar District, and to the losses that have been sustained by the flooding of the Country between Coompta and Honore, but as these subjects will require a good deal of investigation, some time must necessarily elapse before the required information can be furnished.—

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The portion of the Canal between Tuddree and Coompta has already been provided for [Item 398. in Statement 2. of Budget of 1857/58.] Plans and Estimates for the portions from Coompta to Honore, and from Coondapore to Barcoor are under preparation, and arrangements, in communication with the District Engineer of Malabar, are being made, for investigating the project for a Canal to connect Mangalore and Cannanore.—

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1. The conduct of Mr. Röesinger is here noticed in connection with the bridges on this Ghaut, the destruction of which was reported to Government, in my letter No. 1545. dated 26th June last, but the subject having been disposed of in Ectract Minutes Consultation No. 1430. dated 25th Ultimo, no further remark is called for, beyond observing that every precaution will be taken to secure the bridges from further injury.—

11. A Report on the ruins of Hullabede noticed by the Right Honorable the Governor in the same para, is under preparation.—

13. After noticing that particular attention will be paid to the points referred to by the Right Honorable the Governor from para: 229, the District Engineer closes his report with a few Observations on para: 233, regarding the Nature of the Soil in the Canara District, and its capabilities of being cultivated.—

14. In his letter No. 173. dated 13th Ultimo

with reference to Extract Minutes Consultation No. 1260. dated 29th June last, the District Engineer states that a press of business has delayed the preparation of a plan for a Travellers Bungalow at Gairsappa, but that the same will be submitted for sanction in the course of the Current Month.—

I have the honor to be,
Sir,
Your Most Obedient Servant
Wd Faber Colonel
Chief Engineer

Uf
W. Rep. Engr H. C.

To
The Secretary to Government
Public Works Department

Cons: 30th June 57 No 58 & 59
" 17th March " " 16 & 17
" 28th July " " 52 & 53

Public Works 1857 Departt.
Cons: 8th Septr.

No 1611

From
The Chief Engineer
To
The Secretary to Govt.
P. W. D.

Dated 12th } August 1857.
Recd. 12 }

No 2868.

Enclosures
& SE No 1690. 8th Septr.

Forwards with reference to Ex: Mins: Consn. No 1260. 29th June last, a further more detailed report from the Distt. Engr. of Canara, on the several Projects noticed in the Minute of the Right Honble the Govr. Communicated to the Central Office with E. M. C. No 463. dated 13th March last.—

No 64.

C14th Aug. C25th C29th

Northern Circle

No 172.

District Engineer's Office
Canara
Mangalore 9th July 1857.

From
Lieutenant J. Goddard
District Engineer of Canara
To
Colonel C. E. Faber
Chief Engineer D. P. Works
Fort St. George

Sir,

1. In obedience to the orders conveyed in Chief Engineer's Resolution No 1737* of the 3rd Instt. received yesterday; I have the honor to submit a revised Copy of my letter⊕ No 479. of the 6th April.—

2. The Devamunny Ghaut, is that portion of the road leading from the Dharwar frontier to the Seaport town of Coompta, by which the descent from the Summit of the Ghaut, ranged at Sircy to the low Country is accomplished.— The lengths of the Ghaut itself is 5 Miles, more or less.—

The Government are already well aware of the importance of this

* Calling for more detailed information required by Govt. regarding the Necessity for buoying out the Harbour at Luddry and the removal of the rocks which are found in it.—

⊕ Submitting notes upon paras 152. 154. 165. 182. 189. 201. 208. 214. 220. 225. 229. and 233.—

Para 152. The scenery about Devamunny is very beautiful, and the pass itself is a good Engineering work, unfortunately the materials for road making are not of superior quality and the Road way suffers much from the heavy traffic.—

this line, from the very frequent reports concerning it, and a proof of its recognized importance, is the liberal grants existing for its maintenance.—

The nature of the Material obtainable for the metalling and repair of this road, was investigated by the Right Honorable the Governor during his tour of inspection, and I regret to say, that the Material did not meet his approval.—

The material obtainable for the repair of this road is stone of two descriptions. The one of a very friable nature, and the other just the Contrary.—

The former is readily and willingly worked and broken by the Coolies on the road, and the latter they strongly object to work or to break, stating, that the work is too hard for them, and that they will quit the work if we persist in obliging them to use the hard stone. Hence we are obliged to do the best we can under the Circumstances

[illegible] the rate?
Generally 20
do

Carts — 27814* from 1st April 1856 to April 1857

Circumstances, and use a larger proportion of the inferior and a small proportion of the Superior Material.—

This is much to be regretted, but all our endeavours to mend matters have proved ineffectual. To Lieutt. Hankin, the Officer in Charge, great Credit is due for exertions to get this road into the best possible order.—

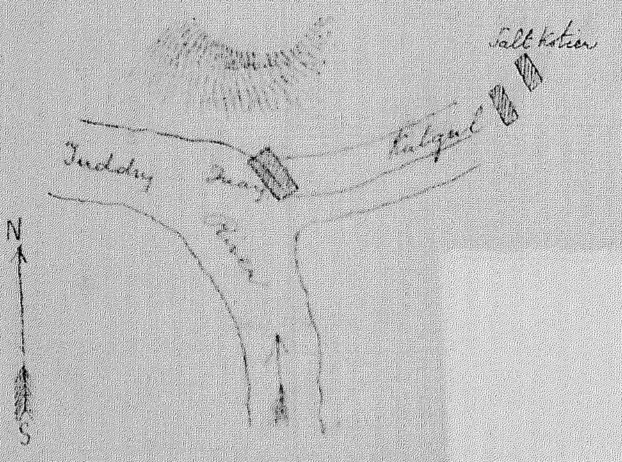
The traffic on this road is exemplified by the traffic return noted in the Margin*. The traffic Continues for 7 Months in the year, and is incessant. Day and Night the bullocks and Carts are travelling up and down this Ghaut, and this in a great measure prevents our working parties from executing repairs with the despatch which would exist under more favorable Circumstances.—

During the prevalence of the Monsoon, the road is continually looked after by parties appointed to Certain portions of it, and every means taken for maintaining it in good order.—

3. The Right Honorable the Governor Calls attention to the necessity of improving this Station, and I much regret, that it is at present out of my power to fully do justice to this im: portant entrepot.—

Para: 154. Kalgul is a small shipping place on the Tuddree river, which is capable of Con: siderable improvement, as also is the navigation of the river both above and below, it is 18 Miles from the port of Tuddree where large Cotton screws are being erected by Mr. Rice, as a merchant of talent and enterprise.

A Sketch of the river at this point [from memory] is noted in the Margin, with the proposed site of the Quay.—



I am at present unable to detail any Officer to prepare a survey and Sections of the river at this point, and the Overseer in Charge is un: able to Survey; hence the matter is at present in abeyance, but at the first opportunity, I shall provide myself with plans and Sections, and design a Quay for this locality, as it is a place of very great impor: tance — No report of the trade at this point is obtainable by me, or it would be inserted in the Margin.—

I much regret this omission. The trade here arises from the in: Sufficiency

165. The Soundings would pro: as deep as 28 feet in Baitcool —

: ing ground, and water to be found both at the foot of the Devamunny Ghaut, and the towns of Coompta — which inconveniences are avoided by drivers by engaging boats at Kalgul to Convey their goods from the foot of the Ghaut to Coompta, or Tuddree, as the case may be. They then return up the Ghaut lightly loaded with Salt and Salt fish, which the boats taking their goods from them, bring up on spe: culation from the Coast, and so to Dharwar &c. The upghaut traffic is not universal.—

4. At high water, vessels of the largest size [the great Eastern] in Cargo might ride here as in some places, the depth even exceeds the depth noted by His Lordship; I understand it amount to nearly 31 feet.—

The importance of the Harbour at Baitcool has been recognized by Government, and a plan and Estimates for improving and completing it is to be submitted after a report to be furnished by Colonel A. Cotton, who visited it in the "Suite" of the Right Honorable the Governor.—

5. Only one rock as far as I am aware is supposed to exist in Baitcool Harbour, and this supposition is due to a notice of this rock in an Old Portuguese work on the Western Coast.—

Para 182. Some small rocks in the Baitcool Bay might easily be blasted.

The Native Merchants, Captains, and fishermen, are not aware of the existence of this rock, and cannot point out any rumoured rock in this bay. Lieut. Taylor of the Surveying Vessel "Pownall" failed to discover the rock, but it is his intention when surveying this part of the Coast, to establish a strict search for it on a future occasion.

6. The reason of my having neglected to notice para 185 of the Extract Minutes Consultation No. 463 of the 13th March 1857 was, that this para was not noted for Report by me in Chief Engineer's Resolution* No. 1139 of the 27th March 1857, and I now hasten to furnish the requisite remarks upon Tuddree. So early as the Year 1835 (the early part of it) Messrs. Brice & Co. had turned their attention to Tuddree, as a port very favorable for vessels of a larger size than those now visiting this part of the Coast, and not only this, but they deemed it would prove to be accessible during the South West Monsoon. Lieutenant Taylor of the Indian Navy has however shewn us, that although we may render it a very good port for large vessels, yet, we cannot hope to render it accessible during the prevalence of the South West Monsoon.

Para 185. Notices that the attention of the District Engr. of Canara should be at once called to this fact and to the destruction of the rocks and also to the necessity for buoys in the Tuddree Harbour.—

*Vide para 1 of this Report

The suggestions of Messrs. Brice & Co. are two in number; first, that a Light House or Flag Staff should be erected on the hills, north of the Harbour, and Secondly, that six mooring buoys should be laid down in the entrance Channel. I consider that Light House ought to be erected here, and that at Coompta removed, as the latter is utterly useless as proved by Seafaring men, and a very favorable Site for a Column presents itself on the Hills north of

Tuddry

Tuddree – I pointed this out to His Lordship when in Canara; and Lieutenant Taylor I.N. entered into detail of the in-utility of the present Light, and I would be very happy to receive early instructions to prepare a plan and Estimate for a Column at Tuddry –

Should Government think fit, the Coomptah Column might be demolished, and its debris sold at auction – the profits arising from the Sale to be deducted out of the Amount of the Tuddry Estimate. –

I shall, if ordered, submit a project for the demolition of the Coomptah Column by Gunpowder, at a Cost less than 100 Rupees, I feel satisfied including the removal of the lantern. –

A Flag staff is not as yet required, but when it is, a plan & estimate will be submitted in accordance with the wishes of Government. –

As regards the second proposition of Messrs. L Brice & Co. it is apparent, that mooring buoys will be equally as useful to the small craft now in use on the Coast, as they would eventually be to the large vessels proposed to be brought into use by Messrs. L Brice & Co., and it appears, that benefit would accrue by the immediate laying down of buoys in the entrance Channel. –

Six Screw moorings of the dimensions shewn in No. 1 in plate I of the Pamphlet, or Mitchels patent, and furnished with the requisite lengths of 1¼" Chains would appear to be of a Nature likely to benefit Craft in the Tuddry river. –

The Screws would be inserted about 15', and be secured by connecting Chains. –

If Ordered to prepare a plan & Estimate for laying down the mooring buoys, I should be glad to have my instructions at an early date, as data of prices is not obtainable on the spot, and a good deal of time will be lost in Correspondence with individuals in Search of the requisite information in detail, of every item in connexion with the Screw moorings.

These moorings will also be available for warping in, and out of the river, which will be an important item in their list of benefits they afford to the Harbour at Tuddry.-

An Estimate for the removal of the rocks will be submitted as soon as I have an opportunity of detailing an Officer to lay them down in a plan, and after I have myself personally duly inspected their size and nature.-

The plan and Estimate for this Canal is under preparation, and will be submitted before October next.-

Para. 189. A Canal might without difficulty be made between Coompta and Honore, and would prove of great service.-

Para 201. A Light House is required at Honore as to the North of the Harbour there are some very dangerous rocks and Shoals.-

8. I would respectfully request to be permitted to remark, that the Coompta Light House, is intended to secure the safety of Vessels from any dangers present on this part of the Coast, but it is reported by Seafaring men to be utterly useless - Tuddry is the port fixed by Lieut. Taylor, and other nautical men, as a most suitable for a Light, and I have requested that Officer to oblige me with his Opinion on the Subject illustrated by a Chart of this Coast.-

Para 208. Intimates the Inspection of Harbour at Mangalore, and that much discussion about the improvement of the same has taken place with Colonel Cotton.-

9. The mouth of the Harbour is still moving to the Northward, and is in a worse state than when inspected by the Right Honorable the Governor, a Sketch of this will be made after the Monsoon, shewing its present position as compared with that laid down in the Surveys of preceding Years.

Para 214. Notices the practicability of Coast Canal.-

10. I am happy to be able to report, that one portion of the Coast Canal Ordered by His Lordship is now under construction, viz; that portion from Tuddry to Coompta - Plans & Estimates for portions of Canal from Coompta to Honore, & from Coondapoor to Barcoor, are under preparation, and initiatory steps are being taken in the matter of a Canal to connect Mangalore and Cannanore.-

I hope to meet Lieut. Bean at Havay in a few days in order to discuss this Canal with him, and a report will immediately after be submitted to Government on this subject by Lieut. Bean.-

This

Para: 226. The lantern on the Light House at Mangalore has been placed on the top of Pillar without any protection whatever, some description of Covering and support should be made round it.—

11. This Order has been attended to, and an Estimate for an Iron Railing round the lantern is under preparation.

I fear to submit an Estimate for a Covering, as the Column and platform are not sufficiently stable to enable me with confidence to carry out His Lordship's Orders, rather than disobey orders. I am preparing a Plan and Estimate for a Covering to be supported by stanchions; but I at the same time request His Lordship's indulgence to be permitted to withdraw the same as rendering the whole fabric likely to fall.—

Para 228. States, that a portion of Munzerabad Ghaut was visited by the Right Honorable the Governor which appeared to be an equally fine piece of Engineering with the Sumpajee and the beautiful ruins of Allabada another of those relics of ancient days which should not be allowed to disappear

12. Mr Boesinger has with infinite zeal completed the bridging of this Ghaut during the past Season, but I regret to report, that the incompetency of his Assistant has entailed the damage by floods of some of the Bridges.—

Mr Boesinger is, I opine, in no way to blame, and I trust that Government may be persuaded, that he has not been guilty of want of Caution, but unfortunate in his assistances—

Early steps will be taken to secure the Bridges from further injury.—

With reference to the concluding part of this para, I have the honor to state that a Report upon "Ruins" &c in Canara is under preparation.—

Para 229. Closes with few general Remarks on particular points which the Right Honorable Governor wishes to specify—

13. I shall pay particular attention to the remarks of His Lordship, and note the works which it is his desire should be undertaken in Canara.—

Para 233. Though the Soil vary greatly in different parts of the Country in some there appearing to be little else but sand, in others gravel, here a fine loam and there the Black Cotton Soil, Yet if water be only at hand, they all produce of Course in varied quantities, Harvest that fully repay the Cultivator.—

14. The Soil in Canara is sandy in low lying land, and red soil elsewhere.

Black Soil is not any where found in the District, and gravel is not very general. During the prevalence of the Monsoon, water is at hand in abundance every where, and Cultivation is carried on all over the Country.—

During the Dry season, water only occurs in certain localities, and is then turned to account in Betel, Cardamum, and Pepper gardens which occur above Ghaut, and here and there in sugar plantation below Ghaut—

In the low Country, however as a

rule, a want of water is experienced towards the end of the dry Season in many places. Water appears not be stored in Canara, owing to the Soil invariably being porous, and we are not acquainted with any Materials obtainable in Canara for making Clay Puddle to prevent filtration, so that tanks are not found here.

Wells for Cultivation are not in general use, owing to the great depths below the ground of the Surface of the water during the dry Season, and the Consequent expense of raising water for Cultivation.

I have &c

Signed J. Goddard Lieut.
Distt. Engr. of Canara

[True Copy]

Fred Cotton Colonel
Chief Engineer

For Orders.

Public Works' Department No 1611.

From the Chief Engineer 12th August 1857.

The only points requiring further notice before the receipt of plans & Estimates for the several works mentioned — are.

1. The [illegible] light house for which an estimate should be ordered.

2. The mooring chains - which should be ordered in proper course.

-mits a more detailed report from Lieutenant Goddard, District Engineer of Canara, on the projects noticed in certain paras

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1857. Depatch

No.

Enclosure in a Letter from the Chief Engineer D. Public Works To The Secretary to Government P.W.D.

Dated 12th
Recd } August 1857.

P.W. 1611/57 No 2868

Copy of a letter from the District Engr of Canara submitting with reference to Chief Engineer's Extract Pro: No. 1737 of the 3d July 1857 revised Copy of letter No. 479 of the 6th April from the District Engineer of Canara.—

5. The column for the light house at Coompta might be left for the present. it is no lanthorn – but might be used – if one shd be built until that at Tuddry is finished

The Asst Engr need take no notice of Hullahurdee as it is in Mysore –

the Chief Engineer submits a more detailed report from Lieutenant Goddard, District Engineer of Canara, on the projects noticed in certain paras

Public Works Dept

No. 1699

Extract from the Minutes of Consultation

Under date the 8th ~~August~~ Sept. 1857.

Read the following letter from the Chief Engineer.

[Here enter 12' August 1857 No. 2868]

A

16

With reference to Extract from the Minutes of Consultation of the 29' June 1857 No. 1260, the Chief Engineer submits a more detailed report from Lieutenant Goddard, District Engineer of Canara, on the projects noticed in certain

paras of the minute of
the Right Honorable the
Governor, dated 24th January,
and communicated to
the Chief Engineer on the
13th March last.

2 There is not much
in Lieutenant Goddard's
report which calls for
orders, as plans and
estimates of some of the
projects noticed by the
Right Honorable the
Governor are already in
course of preparation,
and plans and estimates
of other works will be
submitted after Colonel
Cotton has reported upon
them. The only points
therefore on which orders
appear necessary, are

the

the following:-

1st. The difficulty of getting
labourers to use the
harder and more
substantial material
referred to by the District Engineer, in the
repair of the Deva-many Thaut. It is
stated that while the
Coolies willingly work
with the more friable
material procurable,
they strongly object to
the use of the hard
stone, in consequence
of the difficulty of
breaking it; and
that they threaten
to quit their work,
if peremptorily required
to use the superior

material. The Government are of opinion that the only way of overcoming the difficulty, is to raise the rates of hire, and thus to compensate the coolies for the additional labor which the use of the harder material may impose on them. It is but fair that additional inducements should be offered where more than ordinary labor is required; and ~~the interests of~~ economy, it may be observed, will ~~best~~ be secured, in the end, by the formation of a more durable class of road.

2ndly Erection of a light

house

house at Juddree. The District Engineer suggests that the light house at Coompta, which has been found useless by sea-faring men, should be removed, and that one should be erected on the Hills north of Juddree, as presenting an eligible site for a column. Lieutenant Goddard will be instructed to submit a plan and estimate for the construction of a column for the Juddree light, at the site proposed; but it appears to Government that it would be better to leave the column at Coompta untouched for the present, until that at Tuddree is completed. As regards the mooring buoys of the description proposed for the Tuddry harbour, that part of Lieutenant Goddard's report which relates to the subject, will be referred for consideration in the Marine Department.

The report on the ruins of Hullabede, which the Chief Engineer states is under preparation, need not be proceeded with, as that place is in the Territory of His Highness

the

the Rajah of Mysore
1871

9 Copies to the Chief Engr. Dept. 9
3 .. .. Marine Dept.
with Copy of the letter & encls.

P. W. Cons: 30 June 1857 No. 58-59
— — 17th March — — 16 & 17
— — 28 July — — 52-153

Public Works 1857 Dept.
Cons: 8th September

No. 1699

Extract Mins. of Cons.
Dd 8th September 1857

From the Chief Engr. Dd 21st Sept. /57
C No. 1873 in Cons: 7/7

From Offg. Ch Engr 22d Septr /58
C No. 2225 in

No. 64 & 65.

Passing orders on the report from the Distt. Engr of Canara on the several subjects noticed in certain Paras of the President's Minute communicated to the Central Office in the order of 13th March 1857.—