1. Number of pages 26
2. Date of repair 21-6-3
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MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

Cons. 5 & 5-7

G.O. No. 654 Press Mis.

118-19

Dated 7-4- 185 7

Not to be folded or roughly handled

No. 118. Read the following Extract from the Proceedings of the Chief Engineer, dated 6th April 1857.

Read the following Journal of the Proceedings of Major E. LAWFORD, Superintending Engineer, Southern Circle, from 22nd to 28th March 1857, dated Camp Ootacamund, 31st March 1857.

Coimbatore District.

22nd Sunday.
23rd Ootacamund.
24th Accompanied the District Engineer in an inspection of Saint Stephens Church with a view to it's better ventilation.

Proceeded along the new trace of road from Ootacamund towards Calicut by the Carcoor pass and visited the site of a reservoir proposed by Mr. Fraser near Ootacamund accompanied by that gentleman and Captain Francis.
25th Nedivuttum 18 miles.
26th Nadkany 18 miles.
27th Nedivuttum viâ Godfrey's plantation 20 miles.
28th Ootacamund viâ Poykara 18 miles.

Report on the proposed new line of road from Ootacamund towards Calicut.

At the request of Captain Francis, and in obedience to the orders conveyed in the Chief Engineer's Proceedings, dated 13th March 1857, No. 10,919 para. 3. I have inspected the proposed line of road from Ootacamund towards Calicut by Nedivuttum, and the Carcoor valley.

2. This line has been traced from Ootacamund to Nedivuttum, a slope not exceeding 1 in 50, and only requires to be widened to secure it's adoption in preference to the old road which runs in part nearly parallel to it, but with numerous steep inclines and little attention to correct principles. The new road on the other hand will form an excellent line for carts, and a valuable means of supplying Ootacamund not only with the more distant produce of the low country and Europe, but with fuel from the thick jungles of the western side of the hills, where the forests being exposed to the force of the monsoon, grow up more rapidly than on the eastern slopes, and the increasing scarcity of wood renders this a most important consideration.

3. An estimate of 900 Rupees has been sanctioned for building bridges over three streams on the old line between the Pykara river and Nedivuttum in Malabar, and some materials have been prepared, but as these works are not now urgently necessary, and would be entirely superseded by the new road, I recommend that they should be stopped, and the bricks which are totally unfit for use, rejected, as the sum so saved perhaps 700 or 800 Rupees, may aid in the partial formation of the new line.

4. Descending the Western slopes from Nedivuttum the trace follows the valley in which lie Mr. Ouchterlony's Coffee plantations, and here a gradient of 1 in 25 may be obtained by a slight alteration of the new trace, the steepest incline of which is now 1 in 18, but I strongly advise with Captain Francis the more perfect line continuing to Captain Godfrey's plantation the trace then runs through a succession of hills and valleys of the peculiar Wynaud character, where only skill and experience could determine a fitting line and here too no steeper slope than 1 in 25 will be necessary in easy soil.

5. The third portion as yet traced is that in the Carcoor valley or ravine along the Northern spur of which the line runs, but is not yet completed to it's foot, and beyond the head of which I did not proceed, but I saw enough to satisfy me that Captain Francis and his late able Assistant Lieutenant Stewart have performed their task so far successfully.

6. The expenditure amounts to Rupees 1,200 and there remain 800 Rupees, but the slight trace thus formed will certainly become obliterated by the monsoon and if Government are determined to carry out this line eventually, it is necessary that no time should be lost in widening it to a six feet bullock road for which purpose a sum of 8,000 Rupees should be immediately granted.

7. I believe that no one can judge but from personal experience of the difficulties hardships and risk to which officers and Subordinates are exposed in such a duty as this, and I cannot for a moment suppose that in ordering the trace to be made the Government contemplated its abandonment to the destructive action of the climate, as in the event of Captain Francis leaving India or being disabled, the whole difficulty must be again encountered probably with far less success.

8. That the road will form an excellent western approach to the Mysore country and the Hills there can be no doubt and I think that the final expense of its construction from Maumbat on the Beypoor river to Tippacaudoo with a branch to Ootacamund will be 4 lacs of Rupees for a total distance of 80 miles, but a new feature in its value to the state will be its opening to the sea a country covered with most valuable timber, and especially the Sissoo which abounds in the Wynaud Hills, but is now exposed to destruction by the fires annually made to secure an early crop of grass. I discovered millions of young trees springing up in the scorched ground only to be again destroyed next year; and I saw noble specimens of this valuable tree the escape of which proved what the Government loss really is. From Nadkany where these trees grow in profusion (though they extend half way up the Goodaloor pass) to water carriage at Maumbat is only 40 miles. The forest is open and there are many other excellent woods found in it and equally exposed to annual waste.

9. From Tippacaudoo to the Paundy River 15 miles in length the road opens the communication between Mysore and Malabar and the Ootacamund branch of 18 miles, opens to Ootacamund a valuable source of supply of fuel, as well as renders the Sanitarium accessible and convenient to the European settlers in Wynaud; the second in Goodaloor section 22 miles long connects the plantations with the Neilgherries, and will afford means of bringing timber to the Hill stations, and the third, or Carcoor section, 25 miles long, gives outlet to the produce of the Coffee estates affords means of access to the Hills from the coast, and above all opens to the sea a most valuable supply of timber especially suitable for ship building and Ordnance purposes. With these facts and the reports of Captain and Mr. Ouchterlony before them the Government can judge of the probable value of this line of road, and I would only urge the necessity of an early decision to secure, if that is favorable, the results of the labours of Captain Francis and Lieutenant Stewart of which (especially the former) I cannot speak too highly.

10. It has been arranged that if the Government shall resolve on widening and securing the trace before the monsoon, the work shall be carried on by Captain Morgan in addition to his duties at the Moodavanelley Forest, with the aid of Serjeant Kelly of H. M. 84th Regiment, whose good conduct and constitution, as well as intelligence should if possible be permanently retained in the Department.

Resolved that the foregoing Journal from the 22nd to the 28th March 1857, received from Major Lawford, Superintending Engineer Southern Circle on a tour of inspection, be immediately submitted for the favorable consideration, and early orders of Government; and that regard being had to the possibility of the entire loss of the invaluable and most successful measures of Captain Francis and Lieutenant Stewart for tracing a line of road on so easy a gradient as to be easily practicable for loaded carts from Ootacamund into Malabar via Nedivuttum and Carcoor to Mumbut on the Baypoor river. The Chief Engineer submit his earnest recommendation for the despatch of the following telegraph by the Secretary to Government.

6th April 1857. (Signed) C. E. FABER, Colonel,
Chief Engineer.

" To District Engineer of Coimbatore Ootacamund.

" On the first of May next you have the authority of Government to allot eight thousand " (out of the twenty-six thousand Rupees assigned out of the four lac fund for supplemental and

" emergent expenditure in the Budget for ensuing season) for widening Lieutenant Shaw Stewart's " new trace towards Malabar to a breadth of eight feet, as recommeded in the sixth para. of Major " Lawfords report of the thirty first March.

" The foregoing work is to be prosecuted with all practicable despatch, and with the per- " misson of his Medical Attendants, Lieutenant Chrystie can be employed upon the line during the " residue of his sick furlough, after which he will rejoin his fixed station in the plains."

No. 119. ORDER THEREON, No. 654; dated 7th April 1857.

With the Proceedings above recorded, the Chief Engineer submits for the orders of Government an Extract from the Journal of Major Lawford the Superintending Engineer of the Southern Circle, from the 22nd to 28th of March.

2. The chief matter reported on is the trace lately made by Captain Francis and Lieutenant Shaw Stewart for a new ghaut to the Western Coast in supersession of the old Carcoor road, under orders issued in Extract Minutes of Consultation of the 12th of July 1856, *No. 1163.*

3. It appears that from Ootacamund to Nedivuttum the slope does not exceed one in fifty; and that in no part of the descent will it be greater than one in twenty-five. Major Lawford speaks in the highest terms of the skill and professional judgment shewn by Captain Francis and Lieutenant Shaw Stewart, and represents the great advantages that will be derived by the residents on the Hills from this ready and easy communication with the Western Coast, the facilities that will be offered by a branch road to Tippacaudoo of communicating between Mysore and Malabar, and the almost boundless forest of Sissoo and other timber valuable for ship building, which will be opened to the western ports.

4. The Government fully recognise the force of Major Lawford's arguments on the advisability of preserving the trace made at great risk by Captain Francis and Lieutenant Shaw Stewart, and are alive to the importance of so easy a means of communication between the Hills and the Western Coast.

5. The Government observe that the pass will descend into the very heart of the disturbed parts of Malabar, and will afford ready means of detaching European Troops from Jackatallah should occasion arise for their services—at present the only route open to them is that by the Coonoor Ghaut, Mettapolliam and Paulghaut, as the Sissapara Ghaut is too steep to permit of carriage being used upon it. The distance to Munjairy by the Carcoor pass is 77 miles while by Coonoor and Paulghaut the distance is 122 miles.

6. It is observed that of the sum of Rupees 2,000 sanctioned on the 12th of July 1856 for making the first trace, Rupees 1,200 only have been expended, and the Government learn from Major Lawford's journal, that the greater part of a sum of Rupees 900 sanctioned for the erection of three bridges on the Carcoor road is availabe, as those bridges will not now be required.

7. The Government resolve therefore to authorize Captain Francis at once to expend the balance of the sum sanctioned on the 12th of July 1856, and the sum unexpended from that sanctioned for the three bridges, in preserving the trace already made by him and Lieutenant Shaw Stewart, and in widening it to eight feet, and from the 1st of May next to proceed with the work from the sum placed at his disposal for emergent works and supplemental estimates in 1857-58, reporting his total expenditure to Government when it will be charged to the one lac fund.

Fort Saint George, Public Works Consultation of 7th April 1857.

8. Ordered that the following Telegraph Message be forwarded.

TELEGRAPHIC MESSAGE.

To

CAPTAIN FRANCIS,

District Engineer, Ootacamund.

You may preserve the new trace of the Carcoor ghaut and widen it to eight feet, expending at once on the work the eight hundred Rupees balance of the sum sanctioned on 12th July fifty-six, and the nine hundred Rupees sanctioned for three bridges on the old Carcoor line, not now required, and after 1st May, you may continue the work from the one lac fund, reporting the sum you expend.

Fort Saint George,
7th April 1857.

(Signed) H. FORBES,
Acting Secretary to Government.

(A true Extract and Copy.)

(Signed) H. FORBES,
Acting Secretary to Government.

	2	3	4	5	6
1857	Name of Circle.	Receipt noted with Date.	Draft seen & initialed.	Fair copied.	Dispatched.
Chief Engineer	6 Apl				
Superintending Engineer. Circles					
Uncov.d Asst					

To Gov.t in Cons.n
J.B.

Journal of the Proceedings of Major E. Lanford Superintending Engineer Southern Circle from 22nd to 28th March 1857.

Coimbatore District.

22nd Sunday.

23rd Ootacamund.

24th Accompanied the District Engineer in an inspection of Saint Stephens Church with a view to its better ventilation.

Proceeded along the new Trace of Road from Ootacamund towards Calicut by the Carcoor Pass and visited the site of a reservoirs proposed by Mr Fraser near Ootacamund accompanied by that Gentleman and Captain Francis.

25th Neddiamuttum 18 Miles.

26th Nadkany —— 18 Miles.

27th Neddiamuttum viâ Godfrey's Plantation 20 miles.

28th Ootacamund viâ Pykara 18 Miles.

Reports

Report on the proposed new line of road from Ootacamund towards Calicut.

At the request of Captain Francis, and in obedience to the orders conveyed in the Chief Engineer's Proceedings dated 13th March 1857 No. 10919 Para 3 I have inspected the proposed line of road from Ootacamund Towards Calicut by Neddiumuttum, and the Carcoor Valley.

2. This line has been traced from Ootacamund to Neddiumuttum, at a slope not exceeding 1 in 50, and only requires to be widened to secure its adoption in preference to the old road which runs in part nearly parallel to it, but with numerous steep inclines and little attention to correct principles: The new road on the other hand will form an excellent line for carts, and a valuable means of supplying Ootacamund not only with the more distant produce of the low country and Europe, but with fuel from the thick jungles of the Western side of the hills, where the forests being exposed to the force of the monsoon, grow up more rapidly than on the eastern slopes, and

and the increasing scarcity of wood renders this a most important consideration.

3. An Estimate of 900 Rupees has been sanctioned for building bridges over three streams on the old line between the Pykara river and Neddiumuttum in Malabar, and some materials have been prepared, but as these works are not now urgently necessary, and would be entirely superseded by the new road, I recommend that they should be stopped, and the bricks which are totally unfit for use, rejected, as the sum so saved perhaps 700 or 800 Rupees, may aid in the partial formation of the new line.

4. Descending the western slopes from Neddiumuttum the trace follows the valley in which lie Mr Ouchterlony's Coffee plantations, and here a gradient of 1 in 25 may be obtained by a slight alteration of the new trace, the steepest incline of which is now 1 in 18, but I strongly advise with Captain Francis the more perfect line continuing to Captain Godfrey's plantation the trace then runs through a

succession

succession of hills and valleys of the peculiar Wynaud character, where only skill and experience could determine a fitting line and here too no steeper slope than 1 in 25 will be necessary in easy soil.

5. The third portion as yet traced is that in the Carcoor valley or ravine along the Northern spur of which the line runs, but is not yet completed to its foot, and beyond the head of which I did not proceed, but I saw enough to satisfy me that Captain Francis and his late able Assistant Lieutenant Stewart have performed their task so far successfully.

6. The expenditure amounts to Rupees 1,200 and there remain 800 Rupees, but the slight trace thus formed will certainly become obliterated by the Monsoon and if Government are determined to carry out this line eventually, it is necessary that no time should be lost in widening it to a six feet bullock road for which purpose a sum of 8,000 Rupees should be immediately granted.

7. I believe that no one can judge but from personal experience of the difficulties hardships and risks to which Officers and subordinates are exposed in such a duty as this, and I cannot for a moment suppose that in ordering the trace to be made the Government contemplated its abandonment to the destructive action of the climate, as in the event of Captain Francis leaving India or being disabled, the whole difficulty must be again encountered probably with far less success.

8. That the road will from an excellent western approach to the Mysore country and the Hills there can be no doubt and I think that the final expense of its construction from Maumbat on the Beypoor river to Tippacandoo with a branch to Ootacamund will be 4 Lacs of Rupees for a total distance of 80 miles, but a new feature in its value to the State will be its opening to the sea a country covered with most valuable timber, and especially the Sissoo which abounds in the Wynaud Hills, but is now exposed to destruction by the fires annually made to secure an early crop of grass. I discovered millions of young trees springing up in the scorched ground only to be again destroyed next year, and I saw noble specimens of this valuable tree the escape of which proved what the Government loses really is. From Nadkany where these trees grow in profusion (though they extend half way up the Goodaloor pass) to water carriage at Maumbat is only 40 miles. The forest is open and there are many other excellent woods found in it and equally exposed to annual waste.

9

From Tellapacondoo to the Paundy River 15 miles in length the road opens the communication between Mysore and Malabar and the Codacammund branch of 18 miles opens to Codacammund a valuable source of supply of fuel, as well as renders the Sanitarium accessible and convenient to the European Settlers in Wynaud; the second or Goodaloor section 22 miles long connects the Plantations with the Neilgherries, and will afford means of bringing timber to the Hill Stations, and the third, or Cyarcoor section, 25 miles long, gives outlet to the produce of the coffee estates, affords means of access to the Hills from the Coast and above all opens to the sea a most valuable supply of timber especially suitable for ship building and Ordnance purposes. With these facts and the reports of Captain and Mr Ouchterlony before them the Government can judge of the probable value of this line of road, and I would only urge the necessity of an early decision to secure, if that is favorable, the results of the labours of Captain Francis and Lieutenant Stewart of which (especially the former) I cannot speak too highly.

10 It has been arranged that if the Government shall resolve on widening and securing the trace before the Monsoon, the work shall be carried on by Captain Morgan in addition to his duties at the Moodavanelley Forest, with the aid of Serjeant Kelly of H.M. 84th Regiment, whose good conduct and constitution, as well as intelligence should if possible be permanently retained in the Depart-

ment.

13

ment.

Superintending Engineers
Western Circle.
Codacamund
March 1857.

L Crawford
Superintending Engineer
Southern Circle.

[illegible] that the foregoing Journal from the 22nd to the 28th [illegible] received from Major Crawford Supdg Engr S. Circle on [illegible] inspection be immediately submitted for the [illegible] confidential & early orders of Govt; & that [illegible] being read to the Inhabitants of the Nilgiris & Wynaad [illegible] & measures for carrying [illegible] road on as easy a gradient as the [illegible] road to Codacamund into Malabar via [illegible] Cyarcoor & Meenmutt on the Beypore river [illegible] Engr submits his earnest recommendation for the [illegible] of the following telegram by the Secy to Govt

Chief Engineer
Ootacamund

To District Engineer of Coimbatore
Polesemmund.

The first of May next, you have the authority [illegible] allot eight Hundred, (out of the twenty six [illegible] and rupees appropriated out of the four lac pounds [illegible] plemental & Emergent expenditure in the Budget [illegible] ening below) for widening & metalling the Kaveltarah [illegible] ee towards Malabar to a breadth of [illegible] et, as recommended in the early part of [illegible] Crawford's Report of the 5th April last and [illegible]

The foregoing work is to be prosecuted with [illegible] steadily & with the permission of the [illegible] attendants, so long as they can be employed upon [illegible] during the residue of their sick furlough, after [illegible] to rejoin their proper stations in the Plains.

№ 19043

Journal of the Proceedings of Major E. Lawford Superintending Engineer Fourteen Circles on Circuit-

from 22nd to 28th March 1857.

From.

Supg Engr S. Circle

Dated 31 March
Rec'd 4 April 1857-

P.W.D.

17

No. 654

Extract from the Minutes of Consultation
under date the 7th April 1857

Read the following
Extract from the Proceedings
of the Chief Engineer.
(Here enter 6th April 1857)

With the proceed-
=ings above recorded the
Chief Engineer submits
for the orders of Government
an Extract from the
journal of Major Law-
=ford the Superintending
Engineer of the South-
=ern Circle from the
22nd to the 28th of March.

2. The chief matter
reported on is the
trace lately made by
Captain Francis and
Lieutenant Shaw Stew-
=art for a new Chaut to

Public Works Office
Guz, 7th April.
No 720

Extract from the
Proceedings of the
Chief Engineer.
Extract of &
Dated 6 & Chief Bo
No 654 7th April.

Superintending Surveyor
Inspection by Mayne &
Lawford, Assistants during
Engineer, 4th Southern Circle,
from 22nd to 28th March 1857.

Copy of all its #

Cp. of Ext. No 15

the Western Coast in supersession of the old Carcoor road under orders issued in Ct. of Mins. of Cons. of the 12th of July 1856 No. 1163.

3 It appears that from Ootacamund to Nedivuttum the slope does not exceed one in fifty, and that in no part of the descent will it be greater than one in twenty five. Major Lawford speaks in the highest terms of the skill and professional judgment shewn by Captain Frances & Lieut. Chamberlain Stewart

Stewart, and represents the great advantages that will be derived by the residents on the hills from this ready and easy communication with the Western Coast, the facilities that will be offered by a branch road to Tippacandoor of communication between Mysore and Malabar, and the almost boundless forest of teakwood and other timber valuable for shipbuilding which will be opened to the western ports.

4 The Govt. fully recognise the force of Major Lawford's

arguments on the advisability of preserving the traces made at great risk by Captain Francis and Lieut. Shawbstwart, and are alive to the importance of so easy a measure of communication between the Hills and the western Coast.

5. The Govt observes that the pass will descend into the very heart of the disturbed parts of Malabar and will afford many means of

of detaching European troops from Jacktalla should occasion arise for their services at present the only route open to them so that by the Coonoor Ghaut, Mettapol. Coim and Palghaut, or the Sispara Ghaut is too steep to permit of carriage being used upon it. The distance by

Add to top of Abstract to keep parallel by Despatch

V

2 Munjary by the Caroor pass is 77 miles while by Coonoor and Palghat the distance is 122 miles.

6. It is observed that of the sum of Rupees 2000 sanctioned on the 12th of July 1856 for making the first trace, Rupees 1200 only have been expended, and the Government learns from Major Lawford's journal, that the greater part of a sum of Rs 900 sanctioned on the

for

for the erection of three bridges on the Cascoor road &c. available, as those Bridges will not now be required.

The Government resolve therefore to authorize Captain Francis at once to expend the balance of the sum sanctioned on the 12th of July 1856 and the sum unexpended from that sanctioned for the three bridges, in preserving the trace already made by him and Lieutenant Shaw Stewart, and in widening it to eight feet and from the 1st of May next to proceed with the work from the sum placed at his disposal

disposal for emergent works and supplimental Estimates in 1857/58 reporting his total expenditure to Govt. when it will be charged to the one lac fund.

Ordered that the following Telegraph Message be forwarded

To

Captain Francis
District Engineer
Coïmbatoor

(Fort St. George 7th April 1857)

9 Copies to the Chief Engr. Dispatch

Public Works Dep.t
Cons.: 7.th April.

No 654.

Extract Minis: of Cons.s
of 7.th April 57.

S.C.M. 20 January 58 No 108.

Superior Cir 2925 of
— 1852

Authorizing Capt.n
Francis to preserve the new trace
of the Carcoor Ghaut. widen it
to 8 feet, expending on it the
3.00 Rs. Balance of the same
sanctioned on 12.th July 56,
& 900 Rs. sanctioned p.r 23 Inst.
Prefer 1.st may to continue the
work from the one Lac fund.

No 118 & 119.

cg.d April 15.th

Telegraphic Message

To

Captain Francis
District Engineer
Colaba

You may preserve
the new trace of the
Carcoor Ghaut and
widen it to eight feet,
expending at once on
the work the eight
hundred rupees balance
of the sum sanctioned
on twelve July fifty
six and the nine
hundred rupees sanc-
tioned for three bridges
on the old Carcoor
line, not now required,
and after one May you
may continue the
work

work from the one
last found, reporting
the sums you expend.

Fort St. George,
7th April, 1857.

I have the honor to be
Sir
Your most obedient
humble Servant
Signed J. H. Forbes
Ag. Secy. to Govt.