1. Number of pages. 42.
2. Date of repair. 12.8.37.
3. Initials of Repairer. G

M.R.O. 1—32,400—28-11-30.

MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

Copy 13 to 57

G.O. No. 1907 Press Mis.

3-37

Dated 10-10- 1857

Not to be folded or roughly handled

10/4/57

Fort Saint George, Public Works Consultation of 13*th October* 1857.

Read the following papers.

No. 37. From Colonel C. E. FABER, Chief Engineer; to H. FORBES, Esq., Acting Secretary to Government, dated 2nd September 1857, No. 3372.

SIR,

With reference to the correspondence marginally* noted I have the honor to forward a Plan, and estimate, for a Trussed Bridge, of 70 feet in four spans, for the Irrity River, in Malabar.

* 1 Letter from the District Engineer Malabar dated 30th July 1857, No. 1073.

1 Memo. 23,000.
1 Letter from the Quarter Mr. General.

2. The total amount sanctioned for the Arched Bridge, was Rupees (29,923-5-9) twenty-nine thousand, nine hundred and twenty-three, annas five, and pice nine, which I propose should be left undisturbed, and the sanction of Government, only given, to the alteration of design.

3. Memorandum by the Superintending Engineer, Southern Circle, and Plan of a Canadian Trussed Bridge, are also submitted, but concurring in Major Lawford's views, I think, that on the present occasion the Trussed Bridge, is to be preferred, both being about the same cost, and I would recommend the early commencement of the work. An original letter* from the Deputy Quarter Master General of the Army, recommending the prosecution of the work, is also herewith submitted, with reference to the concluding para. of Extract Minutes Consultation No. 1630, dated 24th August 1857.

Dated 10th August 1857.

* No. 2030 dated 14th August 1857.

Letter from Lieutenant J. BEAN, District Engineer Malabar; to Colonel C. E. FABER, Chief Engineer, dated 30th July 1857, No. 1073.

SIR,

Agreeably to the orders contained in your Extract of Proceedings No. 1727 dated 2nd July I have the honor to submit a revised Plan of a Bridge for the Irrity river, consisting, according to your instructions, of a trussed timber superstruction 70 feet span, I have also to make a few remarks on the proposed site, and Plan as directed by you in a Memo. received with copy of Major Lawford's letter dated 24th instant No. 186.

2. I think with Major Lawford that a trussed timber bridge is preferable to a level lattice one, but I am doubtful with the present unskilled labour and Superintendence for such work in this District, whether it will be practicable to build such a Bridge as I have drawn with a span of 70 feet, and I am still more doubtful since I have read the opinion expressed by the Superintending Engineer against such a construction. The enclosed Plan could probably have a more judicious arrangement of longitudinal Beams, which might be bolted differently, and in shorter pieces. The height also might be increased above 7 feet. Bridges however are constructed on this principle, and I have seen a fine example at Schaffhausen in Switzerland.

3. In my estimate I have kept the same form of piers and the same estimate in every respect* as in Captain Ludlow's copy, and there appears a fair margin left for contingencies, notwithstanding that Mr. Vigor the late Overseer in charge expended a sum of Rupees 3,751-13-2 on the commencement of the working season of last year.

* Allowing for difference of material,

4. If the site is altered to 50 yards lower down stream we shall have to build in water, as the river is never dry at the spot, and there is no effectual means I believe of drying the bed. The right bank also is scarped rock and a great expense will be incurred in the approaches.

5. By altering the position of the eastern Pier, owing to the change of span from 56 to 70 feet there certainly will be much less fear of its obstruction to the passage of floods and trees &c., brought down by the torrent, but I do not think the facilities for building it will be much increased. The deep water extends to the first Pier, as designed by Captain Ludlow, but its foundation or basement could be laid with as much ease as at 70 feet from the bank, the two sites being almost on the same level.

6. I think it a good suggestion, if a timber bridge is decided on, to fit and arrange the timbers at Cannanore as we have many Carpenters at the station, and especially a Maistry of long experience in the Department, and also iron and other material and appliances at hand. It is with the greatest difficulty that work people can be procured in the jungles of the Trunk road, and of this truth I have had experience in endeavouring to carry out the metalling work.

7. Bricklayers, Mr. Robinson informs me could be got at Paulghaut capable of building a brick arch of 56' span, and one of my Maistries also of sufficient experience is in the same locality but even if they were induced to come such a distance to an unhealthy spot, the expense would be very great.

8. I may mention in conclusion that the present approach on the eastern bank for the bridge, as originally designed, is completed, and has been made at considerable expense.

Memorandum from Major E. LAWFORD, Superintending Engineeer, Southern Circle; to Colonel C. E. FABER, Chief Engineer, dated 10th August 1857, No. 197.

The design for a trussed bridge of 70 feet span forwarded by Lieutenant Bean may I think be adopted for the Irrity river if it be made up at Cannanore under good Superintendence but I think the road way should be not less than 16 feet wide instead of 13.

2. A trussed bridge of 70 feet span was I believe built by Lieutenant Colonel F. C. Cotton at Tippacaudoo 12 years ago which Captain Francis tells me "looks as good as ever" so that it is evident the work may be accomplished, and under all circumstances I should prefer one of which an actual example exists to any experimental structure in this locality.

3. The estimate appears to me sufficient supposing the price of wood correct which I have no means of knowing and the amount will probably cover the additional cost of carriage from Cannanore.

4. If the Plan and estimate be approved the present sanction may be applied to the work viz: Rupees 29,923-5-9 and this important work might proceed at once and so be completed before next monsoon. I have annexed a design for a Canadian trussed bridge in three spans of 90 feet each, which may be adopted for the tidal rivers on the Western coast.

Letter from Major F. A. SCOTT, Deputy Quarter Master General of the Army; to Colonel C. E. FABER, Chief Engineer, dated 14th August 1857, No. 2030.

Sir,

In reply to your letter dated 12th August, asking whether the bridge being built over the Irrity river on No. 4 Trunk road may not be considered as deserving of special sanction, with a view to completion, I have the honor, by order to say that although the river, by that name, is not known to this office, the bridge may, as being on No. 4 Trunk road, the only road between Mysore and Cannanore, be regarded as a work of decided importance, and should therefore on no account be allowed to remain unfinished.

No. 38. Extract from the Minutes of Consultation, in the Military Department, dated 31st August 1857, No. 2968.

Read the following Extract from Minutes Consultation, Public Works Department.

Communicating correspondence through the Military Department to the Provincial Commander-in-Chief in view to his opinion being offered as to whether the communication between Mysore and Cannanore is of so much importance in a Military point of view as urgently to require the immediate completion of the Irrity Bridge. } (Here enter 24th August 1857, No. 1630.)

Referred to the Provincial Commander-in-Chief.

(By Order.)

Fort Saint George, 26th August 1857.

(Signed) C. A. BROWNE, Colonel,

Secretary to Government.

From Lieutenant Colonel F. A. REID, Quarter Master General of the Army; to Colonel C. A. BROWNE, Secretary to Government, Military Department, dated 29th August 1857, No. 341.

Sir,

In reply to the Resolution of Government No. 1630 of 24th Instant, regarding the importance of a Bridge over the Irrity river in Malabar, in a Military point of view—I am instructed by the Provincial Commander-in-Chief to say, that the Bridge may, as being in No. 4 Trunk road (the only road between Mysore and Cannanore) be regarded as a work of decided importance, and that the sooner it can be completed the better.

Communicated to the Department of Public Works.

(True Extract and Copies.)

(Signed) C. A. BROWNE, Colonel,

Secretary to Government.

No. 39. Order thereon, No. 1909; dated 10th October 1857.

In Extract Minutes Consultation 24th August last No. 1630, the Government expressed their willingness to permit the immediate prosecution of the work of the bridge over the Iretty river in Malabar, for which an estimate was sanctioned in August 1854, if it could be shewn that the communication between Mysore and Cannanore is of such importance, as urgently to require its completion. The Chief Engineer was at the same time requested to submit a design for a bridge on the Canadian plan, advocated by Major Lawford the Superintending Engineer of the Southern Circle, and to report whether its construction was likely to exceed the amount already sanctioned.

2. The Quarter Master General of the Army, by order of the Commander-in-Chief, reports, in reply to the above requisition, that the bridge being on No. 4 Trunk road, the only road between Mysore and Cannanore, must be regarded as a work "of decided importance, and that the sooner it can be completed the better."

3. The Chief Engineer forwards a plan and estimate of a Trussed bridge for the Iretty river, prepared by the District Engineer, together with a Memo, by the Superintending Engineer, and recommends that the amount already authorized for a Masonry bridge, should be left undisturbed, and that sanction should be given for the change in design.

* Selection No. XIII. page. 7

4. On the representation* of the late Superintendent of roads of the importance of this line, "both in a Commercial and Military point of view," the Government, on the 19th August 1854, authorized the construction of a Masonry bridge over the above river, at an expenditure of Rupees 29,923, an amount which has duly found a place in the annual Budgets, and appears entered as item No. 407 in the Statement No. 2 of the current year's Budget. The revised estimate, or that now submitted for the Trussed bridge, amounts to Rupees 21,388, and the difference between this and the former estimate, will, after making allowance for a sum of Rupees 3,751 laid out by the Overseer at the commencement of last season, be, as the District Engineer observes, a fair margin for contingencies. The Superintending Engineer also recommends that the existing sanction should be applied to the altered design for the work.

5. Major Lawford approves of the design for a Trussed bridge of three Bays each of 70 feet span being adopted for the Iretty river, on the ground that as structure of this character erected at Teppecaudoo twelve years ago has been found to answer well, and he would "prefer one of which an actual example exists, to any experimental structure" in that locality, but he thinks that the road-way should be increased from 13 to 16 feet, a suggestion which it is presumed will receive the Chief Engineer's attention. Major Lawford also forwards a design for a Canadian Trussed bridge in three Bays of 90 feet each, which he says may be adopted for the Tidal rivers on the Western Coast.

6. Independent of the importance in a Military point of view of maintaining the only road from Cannanore into Mysore in a state of complete efficiency which is strongly urged by His Excellency the Commander-in-Chief there are other considerations which urgently call for the measure. From a recent correspondence the Government learn that there has very lately been a great scarcity of grain at Cannanore, that prices have risen to famine rates, that the Troops stationed there have been put to serious inconvenience, and that the difficulty of obtaining supplies is attributed in a greater measure to the state of the inland communications. The Commissariat Officers allude pointedly to the imperfect communication during the S. W. Monsoon between Cannanore and the adjacent countries of Coorg and Mysore, whence they say, grain might be obtained in great abundance. The complaints of the dearness of rice have of late been very general, both the Collector and the Officer Commanding Malabar have alluded to it, and the subject has even been noticed in the public newspapers of Bombay.

From Officer Commanding Malabar and Canara to the Quarter Master General 7th August 1857 No. 247.
From Do. to do. 15th do. 1857 No. 267.
From Commissary General to Government 9th September 1857, No. 146.

7. In the financial resolution of the 27th of June last No. 2603, Military works were specially exempted from the restriction placed generally on Public Works expenditure, and in their letter of the 7th August last, No. 3898, para. 3, the Government of India have allowed this Government a discretion in respect to the maintenance in a state of efficiency of established Military roads, and as Trunk road No. 4 which was opened in 1851, and on which upwards of two lacs of Rupees have been expended, is of this character, and the present exigencies are such as to make it very highly desirable that the communication with Mysore should be kept open, and that Troops should be able to enter Malabar without difficulty, the Right Honorable the Governor in Council is pleased to permit that the proposed Trussed Bridge over the Iretty river shall be proceeded with on the Estimate for Rupees 29,923 sanctioned in 1854.

8. Before however the work is commenced, the Governor in Council must insist upon a positive assurance from the Chief Engineer, that, barring accidents which could not be provided for, the Truss Bridge can be built at a cost not exceeding the estimate sanctioned for the Masonry Bridge.

9. The Governor in Council considers it very desirable, with reference to the nature of the climate in Malabar, that the Bridge should be covered with a pent roof of shingles or palmyra leaves, which, besides protecting the wood work, will afford shelter to travellers during heavy rain, and he desires that the District Engineer be instructed accordingly.

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

Central Office of 1st Cl.
Fort St. George 2d Sept. 57

No. 3372

From

The Chief Engineer,

To

The Secretary to Government

Sir,

Public

1. Letter from the Dr Sup. Engineer Nº 35 dated 18th Aug 1857
2. Plans
1. Dr Estimate Rs 29,388-0
1. Statement 23 sheets
1. Letter from the Dr Supt Engineer

With reference to the correspondence marginally noted I have the honor to forward an plan, and Estimate, for a Trussed Bridge, of 70 feet in four spans, for the Iretty River, in Malabar.

2. The total amount sanctioned for the Arched Bridge, was Rupees 29,923-8-9 Twenty nine thousand, nine hundred, and twenty three, Annas five, and Pice nine, which I propose should be left undisturbed, and the sanction of Government, only given to the alteration of design.

7th Aug 1857

3. Memorandum by the Superintending Engineer, Southern Circle, and plan of a Canadian Trussed Bridge, are also submitted, but concurring in Major Crawford's views, I think, that on the present occasion the

the Trussed Bridge, is to be preferred, both being about the same Cost, and I would recommend the early Commencement of the work.- An original letter + Pr. 2d from the Deputy Quarter Master General, of the Army, recommending the prosecution of the work, is also herewith submitted, with reference to the Concluding para of Ch: Mins: Corr: No 1630, dated 24th August 1857.-

Fort St George
2 Septr/57

I have the Honor to be
Sir
Your Most obdt Servt

Lt
S.S.S.O

Alfd Luther Capt
Chief Engr

To
The Secretary to Government
Pr. D.

Lx-4/44

21K

14 Nov 57

PUBLIC WORKS DEPARTMENT.

Military.

No. 1909.

Extract from the Minutes of Consultation under date the 10th October 1857.

Read the following papers.

Letter from the Chief Engineer.

Forwards plan and estimate for a trussed bridge for the river Iretty in Malabar, solicits the sanction of Government for the alteration of the design, and recommends early commencement of the work as a Military communication. } (Here enter 2nd September 1857, No. 3372.)

Extract from the Minutes of Consultation in the Military Department.

Communicating a letter from the Quarter Mr General of the Army, stating that the Bridge over the Iretty river in Malabar, may, as being in No. 4, Trunk road, (the only road between Mysore and Cannanore,) be regarded as a work of decided importance, and that the sooner it can be completed, the better. } (Here enter 31st August 1857, No. 2968.)

In Extract Minutes Consultation 24th August last No. 1630, the Government expressed their willingness to permit the immediate prosecution of the work of the bridge over the Iretty river in Malabar, for which an estimate was sanctioned in August 1854, if it could be shewn that the communication between Mysore and Cannanore is of such importance, as urgently to require its completion. The Chief Engineer was at the same time requested to submit a design for a bridge on the Canadian plan, advocated by Major Lawford the Superintending Engineer of the Southern Circle and to report whether its construction was likely to exceed the amount already sanctioned.

2. The Qua[illegible]ter General of the Army, by order of the Commander-in-Chief, reports, in reply to the above requisition, that the bridge being on No. 4 Trunk road, the only road between Mysore and Cannanore, must be regarded as a work "of decided importance, and that the sooner it can be completed the better."

3. The Chief Engineer forwards a plan and estimate of a Trussed bridge for the Iretty river, prepared by the District Engineer, together with a Memo, by the Superintending Engineer, and recommends that the amount already authorized for a Masonry bridge, should be left undisturbed, and that sanction should be given for the change in design.

* Selections No. XIII. page 7.

4. On the representation* of the late Superintendent of roads of the importance of this line, "both in a Commercial and Military point of view," the Government, on the 19th August 1854, authorized the construction of a Masonry bridge over the above river, at an expenditure of Rupees 29,923, an amount which has duly found a place in the annual Budgets, and appears entered as item No. 407 in the Statement No. 2 of the current years Budget. The revised estimate, or that now submitted for the Trussed bridge, amounts to Rupees 21,388, and the difference between this and the former estimate, will, after making allowance for a sum of Rupees 3,751 laid out by the Overseer at the commencement of last season, be, as the District Engineer observes, a fair margin for contingencies. The Superintending Engineer also recommends that the existing sanction should be applied to the altered design for the work.

5. Major Lawford approves of the design for a Trussed bridge of three Bays each of 70 feet span being adopted for the Iretty river, on the ground that as structure of this character erected at Teppecaudoo twelve years ago has been found to answer well, and he would "prefer one of which an actual example exists, to any experimental structure" in that locality, but he thinks that the road-way should be increased from 13 to 16 feet, a suggestion which it is presumed will receive the Chief Engineer's attention. Major Lawford also forwards a design for a Canadian Trussed bridge in three Bays of 90 feet each, which he says may be adopted for the Tidal rivers on the Western Coast.

6. Independent of the importance in a Military point of view of maintaining the only road from Cannanore into Mysore in a state of complete efficiency which is strongly urged by His Excellency the Commander-in-Chief there are other considerations which urgently call for the measure. From a recent correspondence the Government learn that there has very lately been a great scarcity of grain at Cannanore, that prices have risen to famine rates, that the Troops stationed there have been put to serious inconvenience, and that the difficulty of obtaining supplies is attributed in a greater measure to the state of the inland communications. The Commissariat Officers allude pointedly to the imperfect communication during the S. W. Monsoon between Cannanore and the adjacent countries of Coorg and Mysore, whence they say, grain might be obtained in great abundance. The complaints of the dearness of rice have of late been very general, both the Collector and the Officer Commanding Malabar have alluded to it, and the subject has even been noticed in the public newspapers of Bombay.

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From Commissary General to Government 9th September 1857, No. 146.

7. In the financial resolution of the 27th of June last No. 2603, Military works were specially exempted from the restriction placed generally on Public Works expenditure, and in their letter of the 7th August last, No. 3898, para. 3, the Government of India have allowed this Government a discretion in respect to the maintenance in a state of efficiency of established Military roads, and as Trunk road No. 4 which was opened in 1851, and on which upwards of two lacs of Rupees have been expended, is of this character, and the present exigencies are such as to make it very highly desirable that the communication with Mysore should be kept open, and that Troops should be able to enter Malabar without difficulty, the Right Honorable the Governor in Council is pleased to permit that the proposed Trussed Bridge over the Iretty river shall be proceeded with on the Estimate for Rupees 29,923 sanctioned in 1854.

8. Before however the work is commenced, the Governor in Council must insist upon a positive assurance from the Chief Engineer, that, barring accidents which could not be provided for, the Truss Bridge can be built at a cost not exceeding the estimate sanctioned for the Masonry Bridge.

9. The Governor in Council considers it very desirable, with reference to the nature of the climate in Malabar, that the Bridge should be covered with a pent roof of shingles or palmyra leaves, which, besides protecting the wood work, will afford shelter to travellers during heavy rain, and he desires that the District Engineer be instructed accordingly.

(A true Extract.)

Acting Secretary to Gover

MILITARY DEPARTMENT.

No. 2968.

Extract from the Minutes of Consultation, 31st August 1857.

Read the following Extract, from M. C. Public Works Department.

Communicating correspondence thro' the Military Department to the Prov. Commander-in-Chief in view to his opinion being offered as to whether the communication between Mysore and Cannanore is of so much importance in a Military point of view as urgently to require the immediate completion of the Irity Bridge. } Hereenter 24th August 1857, No. 1630.

Referred to the Provincial Commander-in-Chief.

(By Order.)

FORT SAINT GEORGE, *26th August* 1857. } (Signed) C. A. BROWNE, Colonel, *Secretary to Government.*

From Lieut. Colonel F. A. Reid, Quarter Master General of the Army, 29th August 1857, No. 341 } to the Secretary to Government, Military Department.

Sir,

In reply to the Resolution of Government No. 1630 of 24th instant, regarding the importance of a Bridge over the Irrity River in Malabar, in a Military point of view—I am instructed by the Provincial Commander-in-Chief to say, that the Bridge may, as being in No. 4 Trunk Road (the only road between Mysore and Cannanore) be regarded as a work of decided importance, and that the sooner it can be completed the better.

Communicated to the Department of Public Works.

(True Extract and Copy.)

Secretary to Government.

To the Department of Public Works. *With 2 spare copies.*

Exd. R. Spears.

Cons: 25th August/57 No 19750

Copy in a. G. L. to C.
of 3d Feby 1859 Pa 1.
Para 4.

Public Works 1857 Departt
Dy to Cons: 13th Oct.

No 1771

Extract Mins: of Cons: 3rd Oct
Military Department.

D/ 31st August

Rect 5th Sept/57 No 2968.
SE No 1902. 10th October.

Communicating a Letter from the Dy Mr Genl of the Army, Stating that the Bridge over the Dirtly River in Malabar may, as being in No 4 Trunk Road (the only Road between Mysore & the Sea Coast) be regarded as a work of declared importance & that it should be known if it can be completed this season.

From Chief Engr D/ 20 Oct/57
Cl No 2303 in Cons: 2 Dec/

No 38.

6 Oct 28th

Public [roads] [New Work]

Abstract of Estimate No of 185 5

Road No

District Malabar

Work Building a Timber Bridge across the Dirtly River in the Perum[illegible] bauny Road

Quantities	Description of Work	Rate			Amount	Amount for each part
C. Yds.		Rs	as	P.	Rupees	Rupees
56259	Cubic ft of Laterite in Chunam	Cft	"	2	"	7032	
7512	do of Jungle wood	do	1	"	"	7512	
316	Superft of Carpentry	Rft	2	1/2	"	711	
186	Iron Shoulders & Stirrup pieces &c	&c	2	"	"	372	
	Iron work for Plates Bolts &c	&c	"	"	"	350	
15130	Superft of Plastering	Superft	3	"	"	454	
11434	Cubic ft of Removing rock below 2 West arches & leveling side slopes of road on both sides of the Bridge	Cft	"	"	9	536	
2154	Superft of Tabling rock below Piers & Abutments	Superft	5	"	"	108	
938	Cft of Earth works	Cft	"	1	"	59	
	Baling water		"	"	"	300	
	Asperbaches		"	"	"	1000	
	Superintendence		"	"	"	1200	
	Contingencies		"	"	"	1754	
		Total Company's Rupees					21388

Central Office of Ch. E.
Fort Saint George
2 Sept., 1857.

Original Estimate Sanctioned on the 19th August 1854 — 29923 — 5 - 9
Revised Do — 21388 — " — "
8535 — 5 - 9
Amount Spent by Mr. Vigor 3751 — 13 - 2
Balance for Contingencies — 4783 — 8 - 7

W. Ed Porter Colonel
Chief Engineer D. P. W.

Quantities	Description of Work	Rate			Amount	Amount per each part
Co. Ads.		Rs	As	P	Rupees	Rupees

Copy in a G. L. to E.
of 3d Feby 1859. No 1
Para 4.

Enclosure

No 2 to 11

From

The Chief Engineer
S.P.W.

To

The Secretary to Govt
P.W.D.

Dated 2d September 57
Recd 9/9/57
No 33/2.

Abstract Estimate for Erecting a Timber Bridge across the Tidal River on the Perumbaudy road in the District of Malabar.
Amounting to Company's Rs 21388-0-0

47

Public [roads] [New Work]
Abstract of Estimate No of 185 5
Road No
District Malabar.
Work. Constructing a timber bridge across the Tidal rivers

Quantities	Description of Work	Rate			Amount	Amount for each part
C. Yds.		Rs	as	P	Rupees	Rupees
50895	C.F. Laterite in chunam — 7 Cft.	"	2	"	6362	
138	Squares Plastering — 7 Sqre	3	"	"	414	
11434½	C.F. Removing rock below arches rivetting side slopes of road on both sides of the bridge 7 Cft.	"	"	9	536	
2154	Sqd. F. Tabling rock below piers & abutments — 7 Sqe	5	"	"	108	
938	C. Yds. Filling up behind abutments Raising roadway 7 Cyd	"	1	"	59	
	Baling water				300	
	Approaches				1000	
6386	C. F. Sungleewood — 7 Cft	1	"	"	6386	
24	Iron bottom ties including nuts — @	35	"	4	840	
20	Bolts for bottom chords at 10 ft. apart including nuts @	"	2	"	150	
24	Iron stirrups between the top & bottom chords — @	2	8	"	60	
	Carried Over				16215	

Quantities	Description of Work	Rate Rs.	As.	P.	Amount Rupees	Amount for each part Rupees
C. Yds.	Brought over				16215	
48	Iron stirrup between the top and bottom chords (1d)	3	8	-	168	
48	Do. Do. Do.	6	"	"	288	
48	Do. Do. Do.	10	"	"	480.	
96	Do. Do. Do.	15	"	"	1440.	
	Carpenters for fitting and fixing 8 Cts.				990.	
	Iron work for plates Nails				500.	
	Superintendence				1200	
	Contingencies				719	
	Total Company's Rupees Twenty three thousand					23,000

Central Office of P.W.
Fort St. George
2 September 1857

R. E. Fraser Colonel
Chief Engineer D.P.W.

Copy in a G. L. to E.
d/ 3d. Feby. 1859 No 1
Para 4.

Enclosure

In a Letter

From

The Chief Engineer
D. P. W.

To

The Secretary to Govt.
D. P. W.

Dated 23 September 57
Received 30 Sept 57
P.W. 1769/57
No. 3312

Abstract Estimate of the expense of constructing a timber bridge across the Tidal river in the District of Malabar. Amounting to Cis Rs. 2300

Copied [illegible]

23

From Anders
Public Works Department No 1769.
From the Chief Engineer 2d. September 1857.

I do not understand whether Cole Taken means to say - that the Trussed bridge will not cost the same as the arched bridge - this point should distinctly ascertained -

I think the work may

be postponed for the next budget.

E

I understand the Chief Engr. to mean that the Junction Railway could not be less than that the estimate for the Cattle Shoots must be abandoned.

The Bridge is an important link between Ingcon & Canamore. Any alteration may diminish that

the work should not be delayed

G

The cost of both plans is nearly the same, Col. Stays - he only asks sanction to change the design

But I greatly doubt whether they should be done. Major Law pers. in his Memo does not offer a single reason for preferring a timber to a Masonry structure & we have seen that the Railway Engr. at Rome gave a decided preference to the latter plan

G

P.W.D

No. 1909.

Extract from the Minutes of Consultation
Under date the 10th October 1857.
Read the following
Papers.

From the Chief Engineer.

(Here enter 2d September 1857.
No 3372.)

Extract from the Minutes of
Consultation in the Military
Department.

(Here enter 31st August 2968)

An Extract Minutes
Consultation 24th August
last No. 1630 the Government
expressed their willingness
to permit the immediate
prosecution of the work of
the Bridge over the Iretty
river in Malabar, for which
our estimate was sanctions
ed in August 1854, if it
Could

could be shown that the communication between Mysore and Cananore is of such importance, as to urgently to require its completion. The Chief Engineer was at the same time requested to submit a design for a Bridge on the Canadian plan, advocated by Major Lawford the Superintending Engineer of the Southern Circle, and to report whether its Construction was likely to exceed the amount already sanctioned.

The Quarter Master General of the Army, by order of the Commander in Chief, reports, in reply to the above requisition, that the Bridge being on a Trunk Road, the only road between Mysore and Cananore must be regarded as a work of decided importance and that the sooner it can be completed the better.

The Chief Engineer forwards a plan and Estimate of a Trussed bridge for the Pretty river prepared by the District Engineer together with a Memo: by the Superintending Engineer and recommends that the amount already authorized for a Masonry bridge should be left undisturbed and that sanction should be given for the change in design.

On the representation of

* Selections No XIII page 7.

of the late Superintendent of Roads of the importance of this line, both in a Commercial and Military point of view, the Government, on the 19th August 1852 authorized the construction of a Masonry Bridge over the above river, at an Expenditure of Rupees 29923, an amount which has duly found a place in the annual Budgets, and appears as entered at item No. 407. in the Statement No. 2 of the Current years Budget. The revised estimates, or that now submitted for the finished Bridge amounts to

Rs.

Rupees 21,388, and the difference between this and the former estimate will, after making an allowance for a Sum of Rupees 3,751 laid out by the overseer at the Commencement of last season, be, as the District Engineer observes, a fair margin for Contingencies. The Superintending Engineer also recommends that the existing Sanction should be applied to the altered design for the work.

Major Crawford

Approves

approves of the design for a Trussed bridge of three bays each of 70 feet span being adopted for the Gretty river, on the ground that a structure of this character erected at Espreconloo twelve years ago has been found to answer well, and he would prefer one of which an actual example exists, to any experimental structure" in that locality. but he thinks that the roadway should be increased from 13 to

16 feet. a suggestion which it is presumed will receive the Chief engineer's attention. Major Lowford also forwards a design for a Canadian trussed Bridge in three bays of 90 feet each, which he says may be adopted for the tidal rivers on the western coast.

Independent of the importance in a Military point of view of maintaining the only road from Carnmore into My- dore in a state of

Complete

complete efficiency
which is strongly urged
by His Excellency the
Commander in Chief,
there are other considera:
:tions which urgently
call for the measure.
From a recent Correspond:
:ence the Government
learn that there has
very lately been a great
Scarcity of Grain at
Cannanore, that prices
have risen to famine
rates, that the troops
stationed there have been
put to serious inconveni:
:ence, and that the diffi:
:culty of obtaining supplies is attributed
in

From Officer Com.g Malabar & Canara
to the 2d Mr Genl 7 Augt 57 No 247.
From — do — to do 15th — " — " — 267
From Com.r Genl to Genl 9 Sept 57 - 146.

in a greater measure
to the state of the inland
communications. The
Commissariat Officers
allude pointedly to the
imperfect communica:
:tion during the S. W.
monsoon between Cana:
:nore and the adjacent
Countries of Coorg and
Mysore, whence they
say, grain might
be obtained in great
abundance. The
complaints of the dear:
:ness of rice have
of late been very
general, both the
Collector and the Officer
Commanding Malabar
have alluded to it,
and the subject has
been

ever been noticed in the public newspapers of Bombay.

On the financial resolution of the 27th of June last No. 2603, Military works were specially exempted from the restriction placed generally on Public Works expenditure, and in their letter of the 7th August last No. 3898 para 3, the Government of India have allowed this Government a discretion in respect to the maintenance in a state of efficiency of established Military roads, and as Trunk Road

Road No. 4 which was opened in 1857, and on which upwards of two lacs of Rupees have been expended, is of this character, and the present exigencies are such as to make it very highly desirable that the communication with Mysore should be kept open, and that troops should be able to enter Malabar without difficulty, the Right Honorable the Governor in Council is pleased to permit that the proposed Trussed Bridge over the Kotty river shall be

be proceeded with on the Estimate for Rs 29,925 sanctioned in 1854.

8. Before however the work is commenced, the Governor in Council must insist upon a positive assurance from the Chief Engineer, that, barring accidents which could not be provided for, the Truss bridge can be built at a cost not exceeding the Estimate sanctioned for the masonry bridge.

9. The Governor in Council considers it very desirable, with reference to the nature of the climate in Malabar,

that

that the Bridges should be covered with a tiled or thatched roof of Teakwood or Jack beams, which, besides protecting the wood work, will afford shelter to travellers during heavy rain; and he desires that the District Engineer be instructed accordingly.

J. G.

9 Copies to the Chief Engr Dispt. 13th
3 Copies to the Bridge Dept.

25th Augt 57 No 49 & 50.
21st July " " 62 & 63.
22d Augt 54 " 15 & 16.

Copy in a G. L to C.
D/ 3d Feby 1859 241
Para 4.

Mn Cons: 25th Augt /57: Nos 49-50.
do 21st July " 62. 63.
do 22d Augt 1854 15.16.

Public Works 1857 Dept
Dy to Cons: 13th Octr

No 1909.

Extract Mins: of Cons:
Dated 10th October /57

From the Chief Engr D/ 20th
Novr /57 C No 2303 in 6: 8 Decr
12. 13

From do Dated 14th March 1839
C. Lr. 657 in C 1056

From Inspr Genl stating, permitting
that the proposed Trussed Bridge
over the Jetty River at Innisfail may be
provided with out the Estimate for Rs
2992, sanctioned in 1854

p37 to 39.

6th October 1858