

- (1) பக்கங்களின் எண்ணிக்கை 62
 (2) புதுக்கித் திருப்பிய நாள் Oct - 1890
 (3) ஆதாரங்குறிப்பவர் சுருக்கொப்பம் lena

தமிழ்நாடு ஆவணக் காப்பகம்.

தமிழ்நாடு அரசு

203

P. W. D. துறை

அரசாணை எண். மு. கோப்புத் தாள் எண்.	1722	அச்சகம் பலவகை
நாள் :	26 - 6 - 1891	நாள் :

மடிக்கவோ கண்டபடி கையாளவோ கூடாது

31. Sheets

ஆவண. கர-1-18,006-15-6-67.

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1722
1

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

READ—the following papers :—

From Lieutenant-Colonel R. R. E. DRAKE-BROCKMAN, R.E., Superintending Engineer, IV Circle, to the Chief Engineer, Public Works Department, dated 4th March 1891, No. 116/E.W.

I have the honour to submit, for sanction of Government, a second revised estimate, amounting to Rs. 6,60,700, or Rs. 1,10,700 more than the first revised one, sanctioned in G.O., No. 1492 W. of 6th June 1889, for improvements to the Vayitri-Gúdalúr road.

2. The excesses are under the following items, viz. :—

	RS.
I. Earthwork	41,389
II. Metal collection	38,151
III. Sectioning road, spreading metal, blinding, consolidating, &c.	11,310
IV. Revetment	5,520
V. Blasting	2,698
VI. Clearing jungle	549
VII. Removing soft rock	586
VIII. Do. hard do.	209
IX. Corresponding increase in contingencies and petty supervision	10,288
Total excess	1,10,700

3. The causes of excess may also be classed with reference to (1) additional works and (2) enhanced rate found absolutely necessary in the execution of work—

(1) Additional works.

	RS.
Earthwork (extra) 4,832,988 cubic feet	39,376
Lead and lift not provided for in the first revised estimate	1,259
Revetment	5,520
Blasting	2,698
Jungle clearance	549
Removing soft rock	586
Do. hard do.	209
Total	50,197

(2) Enhanced rates.

	RS.
Earthwork (excess in rate)	754
Metal (do.)	38,151
Sectioning road, &c. (excess in rate)	11,310
Total	50,215

Excluding the excess due to contingencies and petty supervision, the increase may safely be put down at 50 per cent. on each of the above causes, i.e., additional works and rates.

4. In the peculiar circumstances brought to notice by the Assistant Engineer in special charge of the work (*vide* his letter No. 432 E. of 30th August 1890), I consider that the revised estimate under reference is a fair one and recommend that the tender of Messrs. Mitchell and Mackenzie may be accepted.

5. The estimate prepared by Mr. deWinton has, I regret to say, proved fallacious. The want of care and precision shown in merely assuming that the amount allowed in Mr. Todd's estimate for earthwork would be sufficient for that item in his estimate without going into the necessary details for each mile, as well as the inadequate rates allowed for metalling, have been the chief causes of all the subsequent delay and embarrassment in dealing with the only contractors that could be found willing to do the work, viz., Messrs. Mitchell and Mackenzie. Mr. Allen has consequently been obliged to recast the whole estimate and so work with the contractors as to induce them to carry on the work which, it is hoped, will be out of hand by the end of next official year.

6. Mr. Allen's letter No. 432 E., dated 30th August 1890, shows the difficulties under which he laboured and I can heartily endorse the encomiums passed upon him in the letter from Mr. Joyce, dated 14th February 1891.

From Lieutenant-Colonel R. E. DRAKE-BROCKMAN, R.E., Superintending Engineer, IV Circle, to the Chief Engineer, Public Works Department, dated 26th May 1891, No. 271 W.

With reference to para. 3 of your memo. No. 77 D., dated 22nd ultimo, and the reminder No. 77 D/1, dated 22nd instant, *in re* the revised estimate (Rs. 6,60,700) for improving the Vayitri-Gúdalúr road, I have the honour to submit, herewith, letter No. 132 of 8th instant from Mr. W. B. deWinton, explaining the shortcomings on the first revised estimate, and to state that the delay in acting on Mr. Allen's letter of 30th August last is due to Mr. Joyce not having submitted the letter until it was specially called for after receipt of the first instalment of the revised estimate received with his letter No. 514 of 29th November 1890.

A copy of Mr. Joyce's letter No. 219, dated 23rd January 1891, explaining the cause of delay is herewith forwarded.

2. A tracing of the road, showing Mr. Todd's original line and deviation therefrom, will be forwarded when received from the Executive Engineer, who has been reminded to send the same.

The original papers, which accompanied the memorandum, are herewith returned.

Letter from the Superintending Engineer, IV Circle, dated 9th June 1891, No. 303 W.

Note by the Acting Chief Engineer, Public Works Department.

With the above the Superintending Engineer submits a revised estimate, amounting to Rs. 6,60,700, for the Vayitri-Gúdalúr road.

2. In G.O., No. 1492 W., dated 6th June 1889, a revised estimate for improvements to Vayitri-Gúdalúr road, amounting to Rs. 5,50,000, was sanctioned in supersession of the original estimate (Rs. 4,10,000). The excesses were mainly due to (1) increase of rates for road work (Rs. 66,118) and (2) increase in cost of iron bridges (Rs. 78,716), and it was then considered that all possible requirements would be covered.

3. The Superintending Engineer, however, now submits a second revised estimate, amounting to Rs. 6,60,700, or Rs. 1,10,700, more than the first revised estimate, of this excess he attributes 50 per cent. to additional works and 50 per cent. to increased rates.

4. With regard to the former, by far the largest item is due to earthwork, viz., Rs. 39,376, and this excess is due to two causes—(a) to the under-estimating of the amount of earthwork actually necessary to the extent of about Rs. 21,000; (b) to sloping of scarp originally omitted in Mr. deWinton's calculations, but afterwards found necessary, about Rs. 18,000.

5. With regard to (a) the first revised estimate was gone into as thoroughly as time permitted by Mr. deWinton, but, owing to the alteration of the line from that proposed by Mr. Todd, it was impossible, in the time allowed, to get out accurate sections, and, taking into consideration that the line adhered to by Mr. deWinton, with the exception of trifling diversion, was the old high road, whereas that estimated by Mr. Todd embraced a new trace of 13 miles, a considerable portion of which would have been all new cutting, it was concluded that the total amount of earthwork allowed by Mr. Todd would suffice. This, however, proved to be fallacious and additional work to the extent above mentioned had to be carried out.

6. With regard to (b) Mr. deWinton states: "This (sloping of scarps) I never intended to do, because I believe it to be a waste of money in the Wynaad with its heavy rainfall. Any one traversing the Wynaad roads will see that the scarps are nearly all vertical or overhanging, showing that, whatever slope you give them at first, they lose it in time. I intended to leave this action to nature rather than spend Government money upon it." This view is in the main correct, but provision should have been made for removing and spreading the earth as it was washed down, and, had Mr. deWinton remained on the work, he would probably have arranged for this, but he was unable through fever to go to Wynaad in May, and, in June, he was transferred, and between that and September 1889, when Mr. Allen took charge, it appears there was no proper supervision of the road, and these being the months of the heaviest rain the result was the new earthwork got into a regular mess and Mr. Allen had to spend Rs. 18,000 on sloping and sectioning (*vide* his letter No. 432 E., dated 30th August 1890).

7. The next large excess under additional works is Rs. 5,520 for revetment, rendered necessary to keep the full width of road (18 feet) near Devalla, where, owing to the steep slope of the hill side, the roadway has to be built out from the hill. This appears to have been overlooked in the original estimate.

8. The other items of excess from additional works are all fully noted in the Superintending Engineer's letter and comparative statement.

9. As regards enhanced rates the chief item of excess is road metal (Rs. 38,151). Mr. deWinton, when submitting the first revised estimate, went carefully into this item and raised the rate from Rs. 1-8-0 per cubic yard to Rs. 12 per 100 cubic feet. Mr. Allen now points out that he is quite unable to get metal for the whole length at this rate, and, in his letter above quoted, gives reasons for raising it to Rs. 15 for miles 6 to 19, 22 to 24, 30 to 37 and from 42 to end, and to Rs. 18 for miles 37 to 42. These reasons seem sufficient, and the increase in rates is recommended.

10. The other heavy item of excess under enhanced rates is that of sectioning road, &c. (Rs. 11,310) and the increase is in consequence of extra work; the old road was deeply rutted and these were filled in with coarse metal instead of soft mud and many boulders, which interrupted the road, had to be removed and weep-drains formed.

11. The work up to date has been done by the contractors on piecemeal and the Superintending Engineer now submits, for approval, their tender with the recommendation that it may be accepted; he also considers the revised estimate to be a fair one.

12. Under the circumstances, undersigned agrees with the above and recommends the estimate for sanction, and, conditionally, on such sanction, accepts the tender of Messrs. Mitchell and Mackenzie.

18th June 1891.

(Signed) A. C. SMITH, Lieut.-Colonel, R.E.,
Ag. Chief Engineer, P.W.D.,
General, Buildings and Roads Branch.

4

26TH JUNE 1891, No. 1722 W., PUBLIC WORKS.

ORDER—dated 26th June 1891, No. 1722 W., Public Works.

Under the explanation afforded, His Excellency the Governor in Council sanctions the revised estimate, amounting to Rs. 6,60,700, for improvements to the road between Vayitri and Gúdalúr.

2. No time should be lost in pushing on the work, a grant of Rs. 2,00,000 for which has been made in the current year's Provincial budget.

3. This sanction has been registered as Provincial No. 30 W. of 1891-92 and classified as Communications, Original Works. It supersedes the sanction accorded in G.O., No. 1492 W., dated 6th June 1889.

(True Extract.)

Major, R.E.,
Under-Secy. to Govt., P.W.D.

To the Superintending Engineer, IV Circle, with enclosures.
" Examiner, Public Works Accounts.
" Local and Municipal Department
" Honorary Secretary, Wynaad Planters' Association.

Exd. A. D. Xavier.
Spare Copies

1722
3

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of {1891} Madras.
PUBLIC WORKS.

Dated June, 26th.

Recd.

Encl.

G.O., 26th June 1891, No. 1722 W.

JUNE.

Road between Vayitri and
Gudalur

Revised estimate, amounting to Rupees
6,60,700, for improvements to the —, sanc-
tioned with remarks.

1722
4

1st JUNE 1886, No. 1385 W., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

General.
Establishment.

READ—the following papers:—

From Colonel J. BEATTY, R.E., Superintending Engineer, IV Circle, to the
Chief Engineer, Public Works Department, dated Calicut, 20th May 1886,
No. 164 E.W.

I have the honor to forward, for sanction of Government, an application for the
continued employment of the temporary establishment of the Special Wynaad sub-
division during the current official year.

GENERAL.
ESTABLISHMENT.

Gobt. of {1886} Madras.
PUBLIC WORKS.

Dated June, 1st.

Recd.

Encl.

G.O., 1st June 1886, No. 1385 W.

JUNE.

Temporary Establishment

A statement of — required for the Special
Wynaad division during 1886-87, sanctioned

1722
6

19TH JULY 1889, No. 1948 W., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

General.
Establishment.

READ—the following papers :—

Letter to the Secretary to the Government of India, Public Works Department, dated 3rd
October 1888, No. 3092 W.

From the Secretary to the Government of India, Public Works Department, dated 26th
March 1889, No. 887 G.

To the Secretary to the Government of India, Public Works Department, dated 24th April
1889, No. 1089 W.

From G. H. D. WALKER, Esq., Under-Secretary to the Government of India,
Public Works Department (General), to the Secretary to the Government of
Madrass, Public Works Department, dated Simla, 1st July 1889, No. 1890 G.

With reference to your letter, No. 1089 W., of 24th April 1889, I am directed
to communicate the sanction of the Government of India to the rates of local allow-
ances sanctioned for Baluchistan, as entered in the accompanying schedule, being
adopted in Wynaad and the Vizagapatam hill tracts, subject to the conditions noted
in para. 4 of Public Works Department No. 887 G., of 26th March 1889, that is to
say, that the local allowance is not to be drawn by officers travelling casually within
the limits of the tracts named on inspection duty or otherwise; but only by officers
whose head-quarters are within the tracts; in the case of such officers an absence
exceeding ten days from these tracts will deprive them of the allowance for the
whole period of their absence.

ENCLOSURE.

SCHEDULE of revised allowances sanctioned for officers of the Public Works Department
in Baluchistan.

Officers.	Allowances. RS.
Superintending Engineer, 3rd class, and all grades of Executive and Assistant Engineers on salaries not exceeding Rs. 1,100 ...	100
Apprentice Engineers ...	50
Examiners, classes III and IV, and Deputy and Assistant Examiners on salaries not exceeding Rs. 1,100 ...	100
Apprentice Examiners ...	50
Sub-Engineers, all grades ...	80
Supervisors, 1st and 2nd grades ...	60
Overseers, 1st, 2nd and 3rd grades ...	40
Accountants, 1st and 2nd grades ...	80
Do. 3rd grade ...	60
Do. 4th do. ...	40
Sub-Overseers and clerks not engaged locally and not on consoli- dated rates of pay—30 per cent. on salaries varying from Rs. 30 and upwards, subject to a maximum allowance of Rs. 40; and 50 per cent. on salaries under Rs. 30, subject to maximum of Rs. 8.	

ORDER—dated 19th July 1889, No. 1948 W., Public Works.

Communicated to officers of the Public Works Department concerned, for information and guidance, in continuation of G.O., No. 3091 W., dated 3rd October 1888.

(True Extract.)

(Signed) R. R. E. DRAKE-BROCKMAN, Lt.-Col., R.E.,
Ag. Joint Secy. to Govt., P.W.D.

To Superintending Engineers.
To the Examiner, Public Works Accounts.
" Financial Department.

Exd. P. L. Pereira.
Spare Copies

1722
7

GENERAL
ESTABLISHMENT.

Gobt. of {1889} Madras.
PUBLIC WORKS.

Dated July, 19th.

Recd.

Encl.

G.O., 19th July 1889, No. 1948 W.

JULY.

Local Allowances

Letter from the Government of India sanctioning, with remarks, the grant of — in the Wynaad and Vizagapatam hill tracts, communicated to officers of the department concerned.

1722
8

4TH JUNE 1888, No. 1610 W., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

READ—the following letter from Colonel J. BEATTY, R.E., Superintending Engineer, IV Circle, to the Chief Engineer, Public Works Department, dated Coimbatore, 18th May 1888, No. 187 E.W. :—

I have the honor to request you will be good enough to inform me whether the road from Calicut to Vayitri is to be handed back to the care of the District Board as soon as the improvements now in progress are completed, or if it is to be retained in charge of this department as a Provincial work similar to the road from Kallar through Ootacamund to Gúdálúr.

ORDER—dated 4th June 1888, No. 1610 W., Public Works.

The road should be retained under the Public Works Department as at present.

(True Extract.)

Captain, R.E.,
Under-Secy. to Govt., P.W.D.

To the Superintending Engineer, IV Circle.
„ Local and Municipal Department.

Exd. F. R. Bantleman.
Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

Gobt. of 1888 Madras.
PUBLIC WORKS.

Dated June, 4th.

Recd.

Encl.

G.O., 4th June 1888, No. 1610 W.

JUNE.

Road from Calicut to Vayitri

Directing that the — be retained under
the Public Works Department as at present.

1722
to 9

20TH DECEMBER 1892, No. 3485 W., PUBLIC WORKS.

GOVERNMENT OF MADRAS.
PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

READ—the following paper:—

G.O., dated 13th May 1892, Mis. No. 2387, Revenue.

Read—the following Proceedings of the Board of Revenue (Revenue Settlement,
Land Records and Agriculture), dated 2nd May 1892, Mis. No. 4006:—

Read—the following letter from the Collector of Malabar, dated 1st April 1892,
Ref. on C. No. 892-P. 192:—

With reference to para. 2 of the Board's Proceedings, dated 29th February 1892,
Mis. No. 2076, I have the honour to state that in para. 3 of my letter, dated 24th May
1891, Reference on Current No. 1892/P. of 1891, printed with G.O., dated 1st June
1891, No. 477, I recommended the reconstruction of the Chundale-Mysore road as
likely to afford immense relief in times of scarcity. I did not pursue the subject
because the scarcity prevailing in Wynaad itself subsided and since then the Depart-
ment of Public Works has, I understand, been engaged in framing an estimate for
the road.

2. In the event of its being found necessary to give employment to distressed
laborers, I am of opinion that no better work than the reconstruction of this road
could be selected. The magnitude of the work and the situation of the road with
regard to Mysore will not only afford ample and convenient means of relief, but a re-
march to protect the Wynaad against scarcity in adverse seasons and will serve to
develop this part of the country.

3. The enclosed copy of a letter, with its enclosures, addressed to me by the
Wynaad Planters' Association will show that the taluk is dependent on Mysore for its
supplies of ragi and grain. Ragi is the staple food of laborers in Wynaad, and, in
para. 6 of his letter, the Honorary Secretary, Wynaad Planters' Association, states that
at Sultan's Battery the prices which range from 16 to 25 seers per rupee in fine
weather rise to 11 to 16 seers during the rains. For many years past the state of the
road has been a constant source of complaint and the maintenance of it in anything
like a satisfactory condition is quite beyond the resources of the Local Fund Boards.

ENCLOSURES.

From J. F. JOWITT, Esq., Acting Honorary Secretary, Wynaad Planters' Association, to
the President, District Board, Malabar, dated Vayitri, 13th December 1891.

Referring to your letter, dated the 27th October 1891, No. 593 C.&D., I have the honour
to address you on behalf of this association regarding the Chundale-Mysore road—

(1) The state of this road, as you are well aware, has been a constant subject of complaint,
and, until it is formed into a permanent one for heavy traffic, it must continue so
(2) The portion chiefly referred to in the following is that from the 60th mile stone to
the frontier.

(3) During the dry months the road is in fair order, but, at the commencement of July,
it becomes practically impassable and continues in this state till the October sun dries the mud
which then stands in hammocks. These are broken up, thrown into the ruts and beaten down
and the road opened for traffic till the first north-east showers render the last state of the road
worse than the first. Such repairs are doubtless economical, but can hardly be called road-
making.

(4) The condition of the road affects the supply of labour on which we are dependent for
the cultivation of our estates; ragi can only reach us from Mysore and the Tamil coolies now
largely employed in Wynaad are adopting it as their food in place of rice. The laborer will
naturally seek employment where he can live the cheapest and the high cost of the necessary

means of subsistence has reacted in causing labour that used to seek employment in Wynaad to take service in Coorg.

(5) It likewise affects the local population severely at the commencement of the monsoon. This year many of the Kurumbers, Mutchur Kurumbers and Mutchur coolies with families were actually in a state of semi-starvation, having to divide the scanty amount they could earn amongst so many mouths.

(6) It is difficult to collect statistics of the price of grain, cart-hire and rent of tolls, but I believe I am right in saying that there is considerable difficulty in obtaining an offer for the latter and the schedules hereto appended show the high rates at which grain sells at Sultan's Battery and this as regards ragi and grain affects the whole district. As drawn out in form B, the rise in price (especially noticeable in 12 months ending 30th June 1891) follows the state of the road. This is more marked in the prices of ragi and grain, for a supply of which Wynaad is solely dependent on Mysore. These prices have been collected from Kempa Gouda, who is apparently the only grain merchant in Sultan's Battery bazaar. I inquiries from other sources show that prices have ranged for the last few years from 16 to 25 seers ragi during the fine weather to 11 to 16 in the rains and from 9 seers rice under favorable circumstances of the transport to 5½ seers (the price in October last) under the reverse. I may mention that even in the famine years rice was never much below 5 seers for a rupee.

(7) It has been said that we should educate those interested to lay in a stock of grain in the fine weather to carry them through the months that the road is closed, but it must be remembered that the population mostly affected is the immigrant one, namely, the estate coolies, who only arrive in Wynaad in any numbers at the commencement of the monsoon when the condition of the road is at its worst. With them arrive the traders in grain who come up merely for the season, making their harvest when they can and have neither capital to lay in stores of grain nor inducement nor stamina to reside in Wynaad during the hot season.

(8) We have, therefore, the honour to solicit your recommendation to Government of the desirability of converting this road into one capable of carrying heavy traffic during the (wet) season; it is a matter that affects the welfare of Wynaad and we feel assured that you recognize the necessity as much as we do.

A.—Price list of grain for the years 1889, 1890, and 1891 at Sultan's Battery.

Months.	1889.			1890.			1891.		
	Rice for 100 seers.	Ragi for 100 seers.	Gram for 100 seers.	Rice for 100 seers.	Ragi for 100 seers.	Gram for 100 seers.	Rice for 100 seers.	Ragi for 100 seers.	Gram for 100 seers.
January	Rs. 11 0	A. 3 12	Rs. 6 0	Rs. 9 0	Rs. 5 0	Rs. 5 8	Rs. 9 0	Rs. 3 12	Rs. 6 0
February	9 0	4 0	6 0	9 0	5 0	5 8	10 0	4 0	6 8
March	9 8	4 10	5 8	10 0	5 0	8 0	10 0	4 0	6 0
April	10 0	4 3	6 0	10 0	5 4	8 0	11 0	4 8	5 4
May	10 0	4 0	6 4	10 0	3 8	8 0	11 0	4 0	6 4
June	9 12	5 0	6 0	10 0	3 4	8 0	13 0	5 0	6 4
July	11 0	3 14	5 8	10 8	3 8	8 0	12 8	5 0	6 4
August	11 0	4 12	7 0	11 0	3 8	8 0	13 0	5 8	7 0
September	11 0	4 12	7 0	11 0	4 0	8 0	12 8	5 0	8 0
October	11 8	4 14	7 0	11 0	4 4	8 0	14 0	7 0	7 0
November	11 8	5 0	7 0	11 4	4 0	7 0	13 0	5 0	8 0
December	13 0	5 0	7 0	11 0	4 13	7 0	..	..	..

B.—Price of grain at Sultan's Battery for 1889-90, 1890-91 and 6 months ending Dec. 1891.

Months.	For 12 months ending June 1890.			For 12 months ending June 1891.			For six months ending December 1891.		
	Rice for 100 seers.	Ragi for 100 seers.	Gram for 100 seers.	Rice for 100 seers.	Ragi for 100 seers.	Gram for 100 seers.	Rice for 100 seers.	Ragi for 100 seers.	Gram for 100 seers.
July 1889	Rs. 11 0	Rs. 3 14	Rs. 5 8	Rs. 10 8	Rs. 3 8	Rs. 8 0	Rs. 12 8	Rs. 5 0	Rs. 6 4
August	11 0	4 12	7 0	11 0	3 8	8 0	12 8	5 0	7 0
September	11 0	4 12	7 0	9 8	3 8	8 0	13 0	5 8	7 0
October	11 8	4 14	7 0	11 0	4 0	8 0	12 8	5 0	8 0
November	11 8	5 0	7 0	11 4	4 4	8 0	14 0	7 0	7 0
December	13 0	5 0	7 0	11 0	4 0	7 0	13 0	5 0	8 0
January 1890	9 0	5 0	5 8	11 0	4 13	7 0	..	..	..
February	9 0	5 0	8 0	9 0	3 12	6 0	..	..	..
March	10 0	5 0	8 0	10 0	4 0	6 8	..	..	..
April	10 0	5 4	8 0	11 0	4 8	6 0	..	..	..
May	10 0	3 8	8 0	11 0	4 8	5 4	..	..	..
June	10 0	3 4	8 0	13 0	5 0	6 4	..	..	..

Read—letter from the Collector of Malabar, dated 22nd April 1892, No. 1368-P.

ABSTRACT.—Returning the enclosures called for in the Board's reference, dated 7th April 1892.

Resolution—dated 2nd May 1892, Mis. No. 4006.

The Chundale-Mysore road will be entered in the programme of famine relief works for the Wynaad taluk, Malabar district. There seems, however, no likelihood that the work will be required at an early date.

Order—dated 13th May 1892, Mis. No. 2387, Revenue.

Recorded.

(True Extract.)

(Signed) N. S. BRODIE,
for Ag. Under-Secy. to Govt.

No. 1528 W.

Communicated to the Superintending Engineer, IV Circle, with reference to his endorsement No. 89 W., dated 22nd February 1892.

19th May 1892.

(Signed) J. PENNYCUICK, Colonel, R.E.,
Chief Engineer, P.W.D.

Inspection Notes, 1st to 14th November 1892.

Vayitri-Gudalur road.—The original estimate for this road was sanctioned * See G.O., No. 1722 W., dated 26th June 1891. In October 1885 and the work was commenced in March 1886. In June * 1891 the revised estimate (Rs. 6,60,700) still in force was sanctioned.

2. The work is now approaching completion as there remains little to be done except—

- Construction of the Sipathi bridge at 43 miles from Vayitri.
- Raising the Kunambetta bridge at 5 miles 7 furlongs.
- Putting the new girders on the Kanuth bridge at 0 miles 6 furlongs near Vayitri.

There were questions connected with all these which required decision, which after inspection on the spot with the Executive Engineer was arrived at.

3. With reference to (a) it was originally intended to put the new iron super-structure sent from England on the masonry work of the existing wooden platform structure, but the designer in England having taken the spans stated to be intended, the iron work is 3 feet too short to suit the existing work, and the old masonry not being of a character to warrant adding to and patching, it has been decided to build an entirely new structure just on the upstream side of the present one, and the necessary instructions with drawings were given to the Executive Engineer.

4. As regards (b) the iron work from England was put on the abutments of the previous wooden platform work, some patching being done to accommodate them to the span of the iron work; but, as the roadway is carried on the top member of the girders, which are 4 feet deep, and the masonry was not raised, there is not now sufficient headway and the water in the river has already on one occasion risen to above the bottom of the girders. There is also a record of a flood some 3 feet higher and there is nothing for it but to raise the bridge 8 feet;—to accommodate the masonry work to these new conditions required careful consideration;—instructions and sketches given to Executive Engineer.

5. In connection with (c), the Kanuth bridge, there is a difficulty similar to that noticed as regards the Sipathi bridge, but it is rendered greater by the former having three spans and therefore two piers as well as two abutments to be altered to suit the iron work received from England; the raising required on account of the form of girders received is five feet and it has been decided that in carrying out this raising the piers and abutments are to be corbelled out to reduce the spans to what will suit the girders. The material to be used is that of the existing work, namely brickwork, but under the bed stones is to be a complete course of ashlar. A sketch with instructions was given to the Executive Engineer. Whilst the existing wooden superstructure is being dismantled, the masonry work raised, and the new iron superstructure put in position, traffic will have to be accommodated by a diversion and a ford; the Executive Engineer fears that, as no bricks are ready, he will not be able to get the work carried out in this working season; but, as the number of bricks to be burnt and quantity of work to be done are small, there seems no reason why the work should not be done before March; care must be taken whatever arrangements are made that there is no risk of interruption of traffic when coffee is being sent to the coast.

The left bay of this bridge is blocked up for more than half its height by earth either originally left there or deposited by successive floods; this should be kept entirely clear of vegetation and have cuts made through it to enable floods to remove or partially remove it.

The approach to this bay is also masked by a row of clumps of bamboos along the edge of the stream, which must be removed and eradicated even if compensation has to be paid for them; as matters now stand it is not to be wondered at that floods are said to be considerably headed up by the bridge.

6. The road, as a whole, is an excellent one, and especially in the difficult country about "Sheardale" and "Balcarres" shows every evidence of great care having been taken to get the best possible trace; there can be no doubt that it is a great boon to South and South-east Wynaad and the important plantations situated there; it also seems by no means improbable that the gold-mining industry in that part of the country may yet revive and become of importance under more sane and economical arrangements than those which caused the collapse of the former "boom."

7. The maintenance of the road requires, and will require for some time to come, special attention. As it was not possible to get a steam-roller to work on it, the consolidation of the metal is not in some places all that could be wished; the traffic being almost entirely that of bullock carts all with precisely the same gauge and which follow exactly in one another's tracks wears two grooves in road surface; these, if not frequently attended to, will soon become deep troughs which will hold water and lead to rapid disintegration of the road. The filling in of these ruts with rammed and rolled metal after slightly picking up their surfaces and the ramming down and rolling of all places, where the existing metalling of the road appears shaken or loose, are the chief maintenance requirements, though of course attention to side drains and masonry works must not be neglected.

Road from Chundale* via Sultan's Battery to the Mysore frontier—Length 31 miles.—This road is of great importance to the planting interests of South and South-

* At 2½ M. Vayitri on the Gádalúr road.

East Wynaad, because along it comes from Mysore most of the grain (ragi) for the food of the plantation coolies. It finds a place in the scheme for the improvement of the communications of Wynaad dealt with in Colonel Sankey's memorandum printed with Proceedings of the Madras Government No. 1416 W., dated 6th June 1882, and it received notice in Proceedings of the Madras Government No. 448, Revenue, dated 25th May 1891; No. 477, Revenue, dated 1st June 1891; and No. 2387, dated 13th May 1892. In June last the Superintending Engineer sanctioned Rs. 960 for an establishment to complete survey, plans and estimates for the improvement of the whole road and these are far advanced. For the portion of the road from its commencement to Sultan's Battery, the Executive Engineer says the estimate will come to about 2 lakhs, including some Rs. 35,000 for a diversion between 41 miles

† Mileages from Calicut.

7 furlongs† and 44 miles 5 furlongs; but, after inspection, I do not consider

that the proposed diversion, which would add 2,000 feet to the length, is worth

carrying out; indeed, I cannot see sufficient grounds for expecting that Provincial funds should bear any of the cost of dealing with this portion of the road, which may be kept in very passable order with a moderate maintenance grant from Local funds; but the matter is different between Sultan's Battery (60 M.) and the Mysore frontier (72½ M.); for a great part of that distance, the road has never been properly formed and has been injudiciously dealt with, put into cutting where it should have been raised above the general surface of the ground and so on, and there are stretches of considerable length over which in the rains wheeled traffic may be said to be impossible and even pack bullocks are only enabled to pass by the expedient of covering the surface with a rough "grille" or coarse matting of split bamboos. For remodelling this twelve and three-quarters miles of road and putting it into first-rate order with proper gneiss metalling, the Executive Engineer says the estimate will be about 1½ lakhs; this doubtless is for carrying out a "counsel of perfection" along the whole distance, but by devoting attention exclusively to the worst parts, one-third of that sum would make the road always passable for carts; even that smaller sum, however, is, I understand, quite beyond the powers of the Local fund to provide, and, considering the considerable public interests to be served, I think some assistance may well be afforded, if possible, from Provincial funds.

MADRAS,
15th December 1892.

(Signed) G. T. WALCH,
Ag. Chief Engineer, P.W.D.

ORDER—dated 20th December 1892, No. 3485 W., Public Works.

The inspection notes of the Chief Engineer will be communicated to the Superintending Engineer, IV Circle, for guidance.

2. A sum of Rs. 30,000 will be provided in the Provincial budget of 1893-94 for the Chundale-Mysore frontier road, and the Chief Engineer will take steps for having an estimate prepared for dealing efficiently with such portions of the road as now prove a serious hindrance to traffic.

(True Extract.)

(Signed) G. T. WALCH,
Ag. Secretary to Govt., P.W.D.

To the Superintending Engineer, IV Circle.

„ Local and Municipal Department.

„ Honorary Secretary, Wynaad Planters' Association.

Exd. A. D. Xavier.
Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of {1892} Madras.
PUBLIC WORKS.

Dated December, 20th.

Recd.

Encl.

G.O., 20th Dec. 1892, No. 3485 W.

DECEMBER.

Vayitri-Gudalur Road and
Chundale-Mysore frontier Road

Inspection notes of the Chief Engineer on the —, communicated to the Superintending Engineer, IV Circle, and Rs. 30,000 ordered to be provided in the Provincial budget of 1893-94 for the Chundale-Mysore frontier road.

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10TH JANUARY 1888, No. 88 W., PUBLIC WORKS.

GOVERNMENT OF MADRAS.
PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

READ—the following letter from Colonel J. BEATTY, R.E., Superintending Engineer, IV Circle, to the Chief Engineer, Public Works Department, dated Coimbatore, 10th December 1887, No. 493 E.W. :—

I have the honor to submit, for early sanction of Government and assignment of funds, an estimate, amounting to Rs. 1,000, for providing additional support to the Kanooth bridge, about a mile out of Vayitri on the Vayitri-Gudalur road.

2. I may remind you that you inspected this bridge on the 3rd October and were satisfied of the necessity for renewing the superstructure at an early date.

3. The necessity for the work now estimated is explained in the Executive Engineer's letter No. 728, of 6th instant, herewith sent.

	RS.	4. If funds for the work are not available with the Government, I beg to suggest that the required amount may be met from the surrenders noted in the margin (<i>vide</i> letter No. 727, of 5th instant, from the Executive Engineer, West Coast division, bearing this office endorsement, No. 486 E.W., of 7th idem).
1. Collector's cutcherry, Calicut ...	6,000	
2. Sea Customs house, Cochin ...	2,000	
3. Residence for Assistant Superintendent of Police, Malapuram ...	700	
Total ...	8,700	

ORDER—dated 10th January 1888, No. 88 W., Public Works.

The estimate, amounting to Rs. 1,000, for providing additional support to the Kanooth bridge on the Vayitri-Gudalur road, is sanctioned for immediate execution. The amount of the estimate will be provided later in the year.

2. It should be understood that the estimate now sanctioned provides only for a temporary arrangement, and that estimates for the permanent renewal of the bridge are awaited.

3. This sanction has been registered as Provincial, No. 189 W. of 1887-88, and classified as Communications, Original Works.

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Secretary to Govt., P.W.D.

To the Superintending Engineer, IV Circle, with two enclosures.
" Examiner, Public Works Accounts, with the estimate for note and return to Superintending Engineer, IV Circle.

Exd. J. Moses.
Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of (1888) Madras
PUBLIC WORKS.

Dated January, 10th.

Recd.

G.O., 10th Jan. 1888, No. 88 W

JANUARY.

Kanooth Bridge on the Vayit
Gudalur Road

Estimate for additional support to the
sanctioned with remarks.

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26TH JANUARY 1888, No. 311 W., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

READ—the following letter from J. W. MARTIN, Esq., Officiating Superintending Engineer, IV Circle, to the Chief Engineer, Public Works Department, dated Coimbatore, 10th January 1888, No. 13 E.W. :—

Adverting to G.O., No. 152 W., of 18th January 1886, sanctioning the commencement of work for constructing the Sholadi bridge on the Vayitri-Gudalur road, I have the honor to inform you that the provision made for this bridge and its approaches in the general estimate of that road will be greatly exceeded, and that consequently a revised estimate has become necessary.

2. The general estimate of the Vayitri-Gudalur road was sanctioned in G.O., No. 2412 W., of 15th October 1885, and it provided Rs. 15,551 for the Sholadi bridge and Rs. 4,449 for the approaches.

3. Work was started in 1886, but stopped by the monsoons of that year. Early in the present year the iron-work arrived from England, and the work was again started. It was, however, soon found that the rate for masonry—roughly hammer dressed coursed rubble—was much too low; the reason being that the site is in the centre of the Wynad, in an exceedingly feverish tract of country where no labor or carriage is available except what is imported from Mysore or the coast, and lime has to be carted up from Calicut. An increased rate had therefore to be given for the masonry which will cause an excess of Rs. 1,715.

4. Another cause of excess was the iron-work. This, as sent out from England, was totally different from, and about 50 per cent. heavier than, what was provided in the original estimate. This alone causes an excess of Rs. 2,456.

5. Again, the whole of the site and its approaches were so covered with dense jungle when the original estimate was framed that the sections of the ground taken appear to have been insufficient for the preparation of an exact estimate, and when the jungle was cleared it was found that the steepness of the hill sides necessitated the substitution of splayed for straight wings.

The splayed wings were necessary to reduce the heavy cutting for the approaches immediately adjoining the bridge, and in this way it was possible to found nearly the whole of the wings on rock. But the splayed wings contain a greater quantity of masonry, and this adds to the excess on the masonry which comes to Rs. 2,143.

6. Also, owing to the insufficiency of the sections originally taken in the thick jungle on the approaches, the quantities of earthwork for the approaches were greatly under-estimated. On this item there is an excess of Rs. 1,552.

7. No provision was made in the estimate, by oversight, for revetments (which will be indispensable in the neighbourhood of the bridge), nor for blasting rock, painting the iron-work, and hutting. These omissions have been rectified in the revised estimate.

8. Owing to the excesses and omissions above mentioned, together with a corresponding increase in contingencies and superintendence, the total of the revised estimate comes to Rs. 32,751 as explained in the comparative statement.

9. The different items of excess will be briefly as follows:—

	RS.
Excess on masonry partly due to extra quantity and partly to extra rate ...	3,858
Excess on iron-work owing to the design having been altered by the Consulting Engineer to the Secretary of State ...	2,456
Excess on earthwork in the approaches insufficiently estimated for. ...	1,552
Extra works of revetments, blasting rock, painting the iron-work, and hutting ...	2,636
Contingencies ...	954
Superintendence ...	1,295
Total Excess ...	12,751

10. The progress made up to date is as follows:—

- I. The iron-work has been received and carted to site.
- II. The left abutment and the centre pier have been completed.
- III. The foundations of the right abutment have been commenced.
- IV. And the approaches on both sides of the river are nearly completed.

The work has been stopped pending sanction to the revised estimate.

11. I should mention that the bridge has been built in the precise site selected for it by the Special Engineer who prepared the road estimate, and that the site was no doubt chosen because there only solid rock is met with in the bed; at other places lower down the river and nearer the old bridge there is rock, but in the form of large boulders which have been carried down by this mountain torrent in great floods. The site and the position of the approaches were indicated by the trace cut through the jungle by the Special Executive Engineer.

12. As regards quantities those for the earthwork are the actual measurements of work done, as checked by the present Executive Engineer, and the solid rock at the site of the bridge having been laid bare, there can now be no error in regard to the quantities of the masonry work.

13. In reference to the description of work, it was necessary to adopt the most substantial kind readily obtainable; as the stream in flood often brings down large trees, which, as the Local Fund Engineer informed the Superintending Engineer, had more than once severely damaged the present wooden bridge.

14. The insufficiency of the rates provided in the original estimate is also partly accounted for by the fact that this one isolated work out of the whole line from Vayitri to Gúdalúr (about 45 miles) has been taken up, and that it is about equidistant from both ends; it is also about 57 miles from Ooty and 62 from Calicut, the nearest large centres of population. If the whole line of road from Vayitri to Gúdalúr had been taken up instead of only this one work, some experienced contractor from a distance might have come forward, and, being able to give continuous work for a year or two, could have imported his own labor, both skilled and unskilled.

15. That the rates provided for masonry are not unreasonable for such an exceptional case as that of Sholadi bridge has been proved by the experience lately gained on the Barliyár bridge of the Coonoor ghât. There very similar work in an equally unhealthy locality but more favorably situated in being within 9 miles of a railway station is estimated to have cost Rs. 53 per 100 cubic feet.

ORDER—dated 26th January 1888, No. 311 W., Public Works.

The estimate, amounting to Rs. 32,751, for constructing the Sholadi bridge and its approaches on the Vayitri-Gúdalúr road, as revised by the Superintending Engineer, is sanctioned; and, as the general estimate for the road sanctioned in

G.O., No. 2412 W., dated 15th October 1885, is said to include a provision of Rs. 20,000 only for this bridge, the excess Rs. 12,751 will be added to the general estimate, which will now amount to Rs. 4,22,751.

2. This sanction has been registered as Provincial, No. 155 W. of 1887-88, and classified as Communications, Original Works.

(True Extract.)

(Signed) H. R. MEAD, Colonel, R.E.,
Joint Secretary to Govt., P.W.D.

To the Superintending Engineer, IV Circle, with six enclosures.
" Examiner, Public Works Accounts, with the general abstract estimate.
" Local and Municipal Department.

Exd. J. Moses.
Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of (1888) Madras.
PUBLIC WORKS.

Dated January, 26th.

Recd.

Encl.

G.O., 26th Jan. 1888, No. 311 W.

JANUARY.

Sholadi Bridge

Estimate for constructing the — and its
approaches on the Vayitri-Gúdalúr road,
sanctioned.

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10TH JULY 1888, No. 2079 W., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

READ—the following letter from Colonel J. BEATTY, R.E., Superintending Engineer, IV Circle, to the Chief Engineer, Public Works Department, dated Coimbatore, 6th June 1888, No. 221 E.W. :—

With reference to your memorandum No. 1103 C., of 22nd March 1887, I have the honor to submit a revised estimate for a rest-house on the Vayitri-Gúdalúr road near Meppadi.

2. The want of such accommodation has long been badly felt by our officers travelling in that part of the Wynaad, where they are now entirely dependent for shelter on the use of buildings belonging to planters granted them as a favor.

3. The Executive Engineer has carefully revised the estimate with a view to reducing it as much as possible, but is unable to make it less than Rs. 4,470.

ORDER—dated 10th July 1888, No. 2079 W., Public Works.

The estimate, amounting to Rs. 4,470, for constructing a rest-house and subsidiary buildings at Meppadi on the Vayitri-Gúdalúr road, is sanctioned as supplemental to the general estimate of Rs. 4,22,751, sanctioned for the road in G.O. No. 311 W., dated 26th January 1888.

2. This sanction has been registered as Provincial No. 51 W. of 1888-89, and classified as Communications, Original Works.

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Secretary to Govt., P.W.D.

To the Superintending Engineer, IV Circle, with nine enclosures.

„ Examiner, Public Works Accounts, with the duplicate general abstract estimate.

„ Local and Municipal Department.

Exd. F. R. Bantleman.

Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

Gobt. of (1888) Madras.
PUBLIC WORKS.

Dated July, 10th.

Recd.

Encl.

G.O., 10th July 1888, No. 2079 W.

JULY.

Rest-House

Supplemental estimate for constructing a
— and subsidiary buildings at Meppadi on
the Vayitri-Gudalur road, sanctioned.

1722/1726
Memo of Enclosures sent
to the Sup. Engineer II Civil
with G.O. 1722A of 26-6-91.

1 Map of portion of the highway to show
line of road from Vayitri to
Gudalur scale 2 miles to 1 inch.

1 endorsement of Chief Engineer
Madras Command No 3989 of
11 May 1891 on letter from the Ex
Eng. Bangalore water works on
Viz. works No 132 of 8th

1 May 191 to the Ex. Encl.
Letter from Mr Allen to the Ex. Encl.
West coast No 432 of 24-1-91

1 estimate for m - Compensation
Statement of differences
amounting to Rs 660700

1 Letter from P.R. Meadows Esq 45-5 of
31-1-91 to the Ex. Encl. W. Coast
on

1 Data for spreading and Consolidating
mud

1 Data for coallite concrete
kurki-sand and Lime

1 schedule of contract of 14-2-91

1 Schedule of rates

1 Memo with 4 diagrams of 28-1-91
by Mr P. Allen

1- memo of collection of material

1 memo regarding the preparation of
Road Budget for 1891

- 1 specification
- 1 memo regarding concrete archways
- 1 specification for painting
- 1 specification for concrete
- 1 specification for plastering
- 1 notice for mortaring tenders
- 1 specification for making mortar
- 1 memo regarding the improvement of Road surface
- 1 original letter No. 458 of 31-1-91
- 1 contract
- 1 schedule of rates

No 116
8W
From,

Supg. Engineer's office, 4 Circle
4th March 1891.

Lt. Col. R.R.E. Drake-Brockman, R.E.
Supg. Engineer, 4 Circle,

To,
The Chief Engineer,
P.W. Department.

Sir,

Encl: 4

- 1 Comparative statement
- 1 letter from Mr. Allan No. 432 E of 30-8-90
- 1 letter No. 45 E of 31st January 1891 with specification & printed schedule
- Contract signed by the Contractor
- 1 letter No. 469 of 14-2-91 from Mr. Joyce.

I have the honor to submit for sanction of Government a second revised estimate amounting to Rs 6,60,700 or Rs 1,10,700 more than the first revised one sanctioned in G.O. No. 1492 W of 6th June 1889 for improvements to the Vajitri-Budalur road.

2. The excesses are under the following items; viz:-

(I) Earthwork	Rs 4,1389
(II) Metal collection	" 38151
(III) Sectioning road, spreading metal, blinding, consolidating	" 11310
(IV) Revetment	" 5520
(V) Blasting	" 2698
(VI) Clearing jungle	" 549
(VII) Removing soft rock	" 586
(VIII) — do — hard rock	" 209
(IX) Corresponding increase in contingencies & petty supervision	" 10288
Total Excess	1,10,700

3. The causes of excess may also be classed with reference to (1) additional works ~~and~~ and (2) Enhanced rate found absolutely necessary in the execution of work:-

1. Additional Works

Earth work (extra) 4832988 cft	Rs 39,376
Lead and lift not provided for in the first revised estimate	" 1,259
Revetment	" 5,520
Blasting	" 2,698
Jungle clearance	" 549
Removing soft rock	" 586
do hard rock	" 209
Total Rs	50,197

2. Enhanced rates

Earthwork (excess in rate)	Rs 754
Metal do	" 38,151
Sectioning road &c do	" 11,310
Total Rs	50,215

Excluding the excess due to contingencies and petty supervision the increase may safely be put down at 50 per cent on each of the above causes, i.e., additional works and rates.

4. In the peculiar circumstances brought to notice by the Assistant Engineer

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Engineer in special charge of the work
Vide his letter No. 432 E of ^{30th August} 21st January 1890, I consider that the revised estimate under reference is a fair one, and recommend that the tender of Messrs Ditchell and Mackenzie may be accepted.

2. The estimate prepared by Mr. De Winton has, I regret, to say, proved fallacious. The want of care and provision shown in merely assuming that the amount allowed in Mr. Todd's Estimate for earthwork would be sufficient for that item in his Estimate without going into the necessary details for each mile, as well as the inadequate rates allowed for metalling, have been the chief causes of all the subsequent delay and embarrassment in dealing with the only contractors that could be found willing to do the work, viz: Messrs Ditchell & Mackenzie. Mr. Allen has consequently been obliged to recast the whole estimate and so work with the contractors as to induce them to carry on the work which it is hoped will be out of hand by the end of next official year.

6. Mr. Allen's letter No. 432 E, dated
30th August 1890 shows the difficulties
under which he labored, and I can
heartily endorse the encomiums passed
upon him in the letter from Mr. Joyce
dated 14th instant. February 1891.

I have the honor to be,
Sir,

Your most obedient servant,

Ruedra. Buchanan Lt. Col. R.E.
Supg. Engineer, 4th Circle.

RP

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From PWC No 2607
The Supg. Eng^r
4. Circle

Dated 4 } March 1891
Lest 5 }

Ry 7-3-91

Sp. 116.

No 74 D. W. 22 April 1891

Encls. 4. 17

Vayitri Gudalur Road
Submitting for same
than of Govt. a second
revised estimate amount-
ing to Rs. 6,60,700 for im-
provement to the —

W. L. 20. 11. 11

Cons. 1911

No 271
W

Supg. Engineer's Office, 11 Circle,
26 May 1891.

From

Lt Col. R. R. E. Drake Broekman R.E.
Superintending Engineer,
Fourth Circle.

To

The Chief Engineer,
P. W. Department.

Sir,

With reference to para 3 of
your memorandum No 77 D. dated 22nd
Ultimo and the reminder No 77 D. dated
1st Letter No 132 of 21st 22nd Inst^{ts} in re the revised estimate
with 1 encl. No 6,60,700 for improving the Vayitri-
Gudalur road, I have the honor to
submit herewith letter No 132 of 8th Inst^{ts}
from Mr. W. P. DeWinton explaining the
short coming on the first revised estimate
and to state that the delay in acting on
Mr. Allen's letter of 30th August last is due
to Mr. Joyce's not having submitted the
letter until it was specially called for
after

after receipt of the first instalment of the revised estimate received with his letter No 514 of 29th November 1890.

A copy of Mr Joyce's letter No 219 dated 23rd January 1891 explaining the cause of delay is herewith forwarded.

2. A tracing of the road showing Mr Todd's original line and deviation therefrom will be forwarded when received from the Executive Engineer who has been reminded ^{to send} for the same.

The Original papers which accompanied the Memo: are herewith returned.

I have the honor to be,

Sir,

Your most obed^t serv^t,

Ruedrao - Brachman,

Actg Col: R.E.,

Supg. Engineer, IV Circle.

S.W. Department

1722/2721

Note by the Ag. Chief Engineer S.W.D.
dated June 1891.

Read:-

From the S.E. IV Circle, No. 116 EW of 4th March 1891.

With this above the Suptg. Engineer submits a revised estimate amounting to Rs 6,60,700 for the Vajitri Gudalur Road.

2. In G.O. 1492 W dated 6th June 1889 a revised estimate for improvements to Vajitri Gudalur Road amounting to Rs 5,50,000 was sanctioned in supersession of the original estimate Rs 4,10,000. The excesses were mainly due to (1) increase of rates for road work Rs 66,118 and (2) increase in cost of iron bridges Rs 78,716, and it was then considered that all possible requirements would be covered.

3. The Suptg. Engineer however
now

now submits a second revised estimate amounting to £66,700 or £1,10,700 more than the first revised estimate, and of this excess he attributes 50% to additional works and 50% to increased rates.

4. With regard to the former, by far the largest item is due to earth work, viz £39,376, and this excess is due to two causes, (a) to the under-estimating of the amount of earth work actually necessary to the extent of about £21,000, (b) to sloping of scarps originally omitted in Mr. deWinton's calculations, but afterwards found necessary, about £18,000.

5. With regard to (a) the first revised estimate was gone into as thoroughly as time permitted by Mr. deWinton, but owing to the alteration of the line from that proposed by Mr. Todd it was impossible, in the time allowed, to get out accurate sections, and taking into consideration that

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that the line adhered to by Mr. deWinton, with the exception of trifling diversion, was the old high road, whereas that estimated for by Mr. Todd embraced a new trace of 13 ^{miles} ~~sections~~ a considerable portion of which would have been all new cutting. It was concluded that the total amount of earth work allowed by Mr. Todd would suffice. This however proved to be fallacious, and additional work to the extent above mentioned had to be carried out.

6. With regard to (b), Mr. deWinton states "This (sloping of scarps) I never intended to do, because I believe it to be a waste of money in the Wynnad with its heavy rainfall. Anyone traversing the Wynnad roads will see that the scarps are nearly all vertical or overhanging, showing that whatever slope you give them at first they lose it in time. I intended to leave this action to nature rather

rather than spend Govt.
money upon it." This view
is in the main correct,
but provision should have
been made for removing
and spreading the earth as
it was washed down, and
had Mr. deWinton remained
on the work he would
probably have arranged
for this, but he was unable
through fever to go to Wyand
in May, and in June he
was transferred, and between
that and September 1889
when Mr. Allen took charge,
it appears there was no
proper supervision of the
road, and these being the
months of the heaviest rain
the result was the new
earth work got into a
regular mess and Mr.
Allen had to spend \$18,000
on sloping and sectioning -
vide his letter No. 432 of 30th
August 1890.

7. The next large excess
under additional works
is \$5,520 for ~~renewal~~
rendered necessary to keep
the full width of Road 18 feet
near Devalla, where, owing
to the steep slope of the hill-
side, the roadway has to be

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be built out from the hill.
This appears to have been
overlooked in the original
estimate.

8. The other items of excess
from additional works are
all fully noted in the
Supty. Engineer's letter and
Comparative statement.

9. As regards enhanced rates
the chief item of excess is
road metal, \$38,151. -
Mr. deWinton when sub-
mitting the first revised
estimate went carefully into
this item, and raised the
rate from \$1/8 per cubic
yard to \$12 per 100 c. ft.
Mr. Allen now points out
that he is quite unable to
get metal for the whole
length at this rate, and in
his letter above quoted gives
reasons for raising it to
\$15/- for miles 6 1/2 to 19 1/2,
22 to 24, 30 to 37 and from
42 to end, and to \$18 for
miles 37 to 42. These reasons
seem sufficient, and the
increase in rates is recommended.

10. The other heavy item of
excess under enhanced rates
is that of sectioning road etc.

Rs 11,310, and the increase is in consequence of extra work; the old road was deeply rutted and these were filled in with coarse metal instead of soft mud, and many boulders which interrupted the road had to be removed and weep-drains formed.

11. The work up to date has been done by the contractors on piece work, and the Suptg. Engineer now submits for approval their tenders with the recommendation that it may be accepted; he also considers the revised estimate to be a fair one.

12. Under the circumstances undersigned agrees with the above, and recommends the estimate for sanction; and conditionally on such sanction accepts the tenders of Messrs Mitchell and Mackenzie.

Ald.
E.W.

1722
24

W. Current 58175

memos no 77 D of 22-4-91
87. Aug 14 92 of 6.6.89

From

The Supg Engrs
4. Circle

Dated 26. } May 1891
Encl 28 }
No 29-5-91

No 271
No 2962 of 3-11-91
Encl 23

Improving the Vayitri
Gudalur road

Submitting letter No
132 of 8-5-91 from Mr W B
de Winton explaining the
short coming on the first
revised estimate

9/2/95

No 1848.

Executive Engineer's Office,
West Coast Division,
Calicut 6th June 1891.

From

A. Joyce Esq.,
Executive Engineer,
West Coast Division.

1728
25

To

The Superintending Engineer,
Fourth Circle
Coimbatore.

Sir,

Enclosure
1 Survey.

With reference to your No 25845C
dated 25th April last, I have the honor
to forward the enclosed survey of the
Vayitri Gudalur road.

2 If a ^{push} survey is required a special
subordinate will have to be deputed
but the Division being short handed,
the services of none can be spared
and Mr Allen himself, cannot
undertake it as he is suffering
from

from the effects of fever.

I have &c

Signed/ A. Joyce.

Ref. Engineer.

No 303
W

Copy submitted to the Chief
Engineer P.W.D. with reference to last Enclos
para of his Memorandum No 77 at mtg
of 22nd April 1891.

2. The tracing is herewith enclosed.

Quadrant - Kilmann

Lt Col. A.D.,

Supg. Engineer, W Circle.

9th June 1891.

W

1722
26

From

6258

mens no 77 D of 22.4-91
- 324 D of 6-6-91
- 296 D of 3-6-91
S.O. 1492 D of 6-6-89
399 D of 17-6-91

The Supy. Engr.
4. Circle

Dated 9. } June 1891
Despatch }
Rd 11-6-91

Sp 303
W

Enclot (x plan)

Survey of the Vayitri
Guadalupe Road
Forwarding the -

CAW
11-6-91

01582.11
11-23-11

N: 219.

West Coast Division Office
23rd January 1891

From

A. Joyce Esq.,
Executive Engineer,
West Coast Division.

122
27

To

The Superintending Engineer,
Fourth Circle.

Sir,

I have the honor to acknowledge receipt of your N: 593 of 6th Dec^r/90. I very much regret that owing to an oversight upon my part, the explanations upon this question forwarded by the Asst. Engineer, Wynad Sub Division, were not forwarded to you. I send you up herewith a copy of his N: 432E of 30th August 1890. In that the peculiar circumstances of the case are explained. I hope to send you the revised estimate in a very few days for the whole work. The

Revised

J. Reused estimate for the metal collection
alone is herewith returned with the
explanation asked for in order to that
there may be as little delay as possible.

I have ~~you~~

Ld/ A. Joyce.

Exp. Engineer

(True Copy)

Receivable. Buchanan

Lt Col: R.S.

Supg. Engineer, IV circle

AD

1722
2828

1722
9/29

Reforming and metalling
the Calicut Vagitri road made
much progress during the
year. The work from Calicut
to 18th mile was almost, and
the Tennacherry Ghat entirely
completed. Only the portion
between the 18th mile to the foot
of the ghat could not have
its metal laid in the dry
months and has to wait the
1898 South West monsoon.
Several Culverts have been
reconstructed.

Of the Iron bridges, the
Madangapaya bridge 2 spans
of 50 feet had the girders in
place and would be open for
monsoon traffic; the Ingapaya
bridge foundations were laid
and the materials collected
for the superstructure to a
great extent. The foundations
for the Vengari bridge were
excavated and materials
in great readiness at site.

Two minor bridges of 20 feet
and 15 feet span respectively
were put up.

Slide stones were fixed
as far as the 26th mile and
these stones carried to
site at Vagitri.

The

81
PW 5817/91

The road was maintain-
ed during the year in order
and kept open for cart traffic
at a cost of Rs. 18,934.

The total grant for the
year for work on the Calicut
Vayitri road including re-
pairs amounted to Rs. 156,897.
The total outlay on the road
at the end of 1887-88 was Rs. 3,10,925
against the revised estimate
of Rs. 4,11,960.

With regard to the Vayitri
Gudalur Road a sum of Rs.
7772 was expended against
a grant of Rs. 7584 on the masonry
and approaches of the Sholadi
bridge. The progress became
so slow owing to departure
of the Contractor that the
work has been made over
to the Malgiri Division for
completion.

Wynand Road
Extract from Admin
Report of 6 IV

No 1722 W of 26 June 1891

B & P
Civil Works

PUBLIC WORKS DEPARTMENT.

1722
30

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Under date the

Read the following

Letter from S.E. IV Circle... (H.E. No 116 E.W. of 4. iii. 91)
do do do (H.E. No 271 W of 26. v. 91)
do do do (H.E. No 303 W of 9/6/91)
Note by the Acting Chief Engineer P.W.D. } d/18 June/91

Under the
explanation afforded,
His Excellency the
Governor in Council
sanctions the revised
estimate amounting
to Rs. 6,60,700, for
improvements to the
road between Vayitri
and Gudalur.

2. No time should be
lost in pushing on
the work, a grant
of Rs. 2,00,000 for which
has been made in the
current year's Provincial

Budget.

3. This sanction
has been registered
as Provincial No.

30 W of 1891-92, and
classified as
Communications,
Original Works; and it

supersedes the sanction
accorded in Co. No.

1492 W dated 6th
June 1889.

A.L.

W. J. M.

Seen

Submitted for
information
18/11/91

23/7/91

S.E. IV Colworth Enls.
Ex P.W.A. A as he has
Local & all other debt
Hony. Secretary
Wynad Planters Assn

Rs 82/6
H. M. 16/6/91
23/11
A Super
Complete list
Shree 22/11/91

1722
31

5817

13-9-66

Govt. of Madras.

PUBLIC WORKS.

Paint soon

Dated

Recd.

Encl.

G.O. 26 June 1891 No 17220.

Road between Vayitri
& Gundalur -

Revised estimate
amount to Rs 6,60,700, for
improvements to the
sanitation with
demands.

90/

(31)

26/6/91
26/6/91

m 16/6/91
23-11
Compl.
Shree
22-11