

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

24th January 1882, No. 191 W.

Buildings and Roads.
Civil Works.

Read the following paper :—

No. 109. From Major G. R. GIBBS, Officiating Assistant Secretary to the Government of India, Public Works Department, (Civil Works—Irrigation,) to the Secretary to the Government of Madras, Public Works Department, dated Fort William, 23rd December 1881, No. 467 I.

In reply to your letter No. 2965 W. of the 28th November last, regarding the classification of the Pottinghy Ghât Road as a Protective Work, I am directed to state that although roads may in a sense be considered Protective Works against Famine, it is not intended to expend any portion of the Protective grant on them so long as projects for irrigation and navigable littoral canals and railways are available, to which the limited grant for Protective Works can be assigned. Roads, as a rule, should always be made from Provincial Funds and not from Imperial grants.

No. 110. ORDER THEREON, 24th January 1882, No. 191 W.

Recorded.

2. The ruling now communicated strengthens the claim of the Local Government to a larger and fairer share of the revenues of the Presidency for expenditure in it under the recent Decentralization scheme.

(True Extract.)

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

To the Superintending Engineer, First Circle.
" Examiner of Public Works Accounts.
" Financial Department.

Exd. S. T. Austin.
Spare Copies



BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of (1882) Madras.
PUBLIC WORKS.

To

THE SUPERINTENDING ENGINEER,
FIRST CIRCLE,
&c., &c., &c.

Dated January, 24th.

Issued.

Recd.

Encl.

G.O., 24th January 1882, No. 191 W.

JANUARY.
Nos. 109-110.

Potinghy Ghât.—Letter from the Government of India declining to classify the — road and other roads in general as "Protective Works," recorded with remarks.

26TH APRIL 1882, No. 1035 W., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

No. 87.

READ—the following Proceedings of the Board of Revenue, dated 26th October 1881, No. 9462 Miscellaneous.

Read—letter from the President, Local Fund Boards, Godávári District, dated 5th September 1881, No. 74.

Resolution—dated 26th October 1881, No. 9462.

With the foregoing letter the President submits two statements, one showing works sanctioned by the Local Fund Board of the Cocanada Circle, and the other those by the Ellore Circle Board.

2. The Cocanada Circle statement contains 19 items with an aggregate allotment of Rs. 75,426, of which Rs. 74,320 are chargeable to the Road and Rs. 1,106 to the General Funds of the Circle. Allotments, amounting to Rs. 5,080, are sanctioned for the works noted in the margin.

No. in List.	Name of Work.	Allotment.
ROAD FUND BALANCE.		
New Works—Communications.		
1.	Metalling a street at Kapileswarapuram village and constructing side channels to it ...	300
2.	Constructing a road in a punta leading to the village of Pasarlapudi from Muklashwaram road ...	70
4.	Constructing a bridge between 17th and 18th miles of Rajanagaram and Pendapur road ...	370
11.	Constructing a culvert at Tuni ...	190
14.	Constructing roads in Rámachandrapuram village ...	140
18.	Constructing a road to Katravulapalli from 3rd mile of road from Juggampett to Pendapur ...	1,050
Repairs—Communications.		
3.	Repairing a bridge near Kovuruloock over the Yeleru river ...	800
	Do. near Ramaswaram over do. ...	730
6.	Repairing the L. F. boat No. 266... ..	160
13.	Re-gravelling the village roads of Dowlaishwaram ...	800
		4,610

3. The Board sanction the estimate, amounting to Rs. 1,050, for constructing a road to Katravulapalli from 3rd mile of road from Juggampett to Pendapur, and note that the inhabitants concerned have paid a moiety of the cost.

4. Estimates for the four undermentioned works will be submitted for the sanction of Government through the Deputy Chief Engineer, Public Works Department. On receipt of sanction the Board will allot the requisite funds:—

1.	Re-gravelling the road from Bickavole to Rámachandrapuram ...	22,610
2.	Metalling the road from Cocanada to Nelapalli ...	20,230
3.	Re-gravelling the road from Alamur to Tapeswaram... ..	11,470
4.	Gravelling and metalling the road from Amalapuram to Yedurlanka ...	15,400

No. in List.	Name of Work.	Allotment.
GENERAL FUND BALANCE.		
<i>New Works—Miscellaneous Public Improvements.</i>		
10.	Raising a hedge around the cart-stand near Padagaya at Pithapuram	rs. 20
	<i>Repairs—Civil Buildings.</i>	
8.	Repairing choultry at Pithapuram near Padagaya	300
14.	Repairing the travellers' bungalow at Tuni	150
		470
	Grand Total...	5,080

6. The allotments specified in the Ellore Circle statement are sanctioned, Rs. 6,460 from the Road and Rs. 225 from the General Fund balance of the Circle. The President will submit for Board's sanction, Estimates for Items Nos. 3 and 4.

(A true Extract.)

(Signed) C. D. MACLEAN,
Acting Sub-Secretary.

To the Secretary to Government, Public Works Department,
through the Deputy Chief Engineer, Public Works Department, with four Estimates.

No. 87-A.

MEMORANDUM—dated 9th November 1881, No. 2620, Public Works.

Proceedings of the Board of Revenue, dated 26th October 1881, No. 9462 Mis.

In returning the four estimates forwarded with the Proceedings above quoted, the undersigned has the honor to make the following remarks.

2. It is impossible for this office to express an opinion worth having upon these estimates from lack of sufficient information, viz. :—

I.—Distances and rates of haulage are not given for each mile or furlong.

II.—It is not stated how the roadway is brought up to proper transverse section where required, or whether the rate covers this work.

III.—Gravel and metal are estimated to cost the same amount per cubic yard.

3. If metal is as cheap as gravel why not use metal throughout? For instance, in the estimate marked No. 5 it is proposed to use 6 inches of metal with 5 inches of gravel over it. Why use so much of the inferior material when the superior is the same price.

4. It is not stated whether the metal is consolidated or not.

5. Over a layer of metal 6 inches thick a screening of not more than 1 inch of gravel is required.

6. The width of the metalling is excessive, a hard consolidated metalled surface of 12 feet is ample for a first-class road.

7. The difference in cost between 12 and 15 feet widths of roadway should be saved.

8. It is noticed that the estimate for gravelling and metalling the road from Bickavole to Rámachandrapuram does not bear the countersignature of the President of the Local Fund Board.

(By Order.)

(Signed) ROSS THOMPSON, Lieut.-Col., R.E.,
Deputy Chief Engineer P.W.D.

To the Secretary to the Board of Revenue, with five enclosures returned.

No. 87-B.

READ—the following Proceedings of the Board of Revenue, dated 29th March 1882, No. 2581 Miscellaneous.

Read—the following letter from the President, Local Fund Boards, Godáviri, to the Secretary to the Board of Revenue, dated 27th February 1882, No. 31.

In reference to the Board's Proceedings of the 25th November last, Miscellaneous No. 10,189, I have the honor to submit copy of a letter from the Local Fund Engineer, Cocanada Circle, dated 22nd instant, No. 2661, with its seven enclosures,*

* To be returned.
which will supply the information asked for by the Deputy Chief Engineer, Public Works Department, regarding the roads therein alluded to.

Resolution—dated 29th March 1882, No. 2581 Miscellaneous.

Forwarded to the Chief Engineer, Public Works Department, with reference to his memorandum dated 9th November 1881, No. 2620.

(True Copy and Extract.)

(Signed) E. GIBSON,
Acting Sub-Secretary.

To the Chief Engineer, Public Works Department, with seven enclosures.

No. 88.

ORDER—dated 26th April 1882, No. 1035 W., Public Works.

The Government accept the opinion of the Chief Engineer that a metalled surface of 12 feet is ample for a first-class road, and accordingly sanction the undermentioned estimate, which has been reduced from Rs. 21,000 to Rs. 16,380 :—

Re-gravelling the road from Bickavole to Rámachandrapuram—
amount sanctioned rs. 16,380

2. A similar reduction in the estimate for gravelling and metalling the road from Alamur to Thapeiswaram has not been made, as the detailed quantities have not been furnished, but a revised estimate providing for only 12 feet width of roadway should be submitted.

3. The sanction accorded in paragraph 1 of this order has been registered as Local No. 2 W. of 1882-83.

(True Extract.)

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

To the Board of Revenue, with seven enclosures.

„ Accountant-General.
„ Financial Department.

Exd. S. T. Austin.
Spare Copies

BUILDINGS AND ROADS,
CIVIL WORKS.

Govt. of (1882) Madras.
PUBLIC WORKS.

THE BOARD OF REVENUE,

&c., &c., &c.

Dated April, 26th.

Issued

Recd.

Encl.

G.O., 26th April 1882, No. 1035 W.

APRIL.

Nos. 87-88.

Road from Bickavole to Ramachandrapuram, Godavari District.—Sanctions with remarks the reduced estimate of Rs. 16,380 for re-gravelling the —.

3RD APRIL 1883, No. 1015 W., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

READ—the following Proceedings of the Board of Revenue, dated 22nd March 1883, Mis. No. 2582 :—

Read—the following letter from J. G. HORSFALL, Esq., President of the Local Fund Boards, Kistna District, to the Secretary to the Board of Revenue, dated Masulipatam, 5th March 1883, No. 1334 :—

With reference to the correspondence noted in the margin, I have the honor to state that the original estimate for metal-ling Hyderabad road from Anderson's Bridge at Masulipatam to Pamarru, amounting to Rs. 1,64,600, was sanctioned by Government in their Order, dated 13th March 1879, No. 763, Public Works Department, when the Local Fund works were under the charge of the Department of Public Works ; and the work was accordingly put into execution and Rs. 93,790 as per margin were spent on the work up to the end of October 1881, being provided in sanctioned budgets.

	RS.	A.	P.
Up to the end of official year 1880-81	82,798	11	0
During six months of official year 1881-82	10,995	5	0
Total	93,794	0	0

2. The original estimate not providing for rolling and tamping, a revised estimate with a comparative statement approved of by the Local Fund Board was forwarded for Board's sanction with this office No. 90, dated 10th November 1881, accompanied by a copy of the Local Fund Board's Resolution. The Board have returned this estimate with their Proceedings, dated 6th February 1882, with the two estimates marginally noted without referring to the Government Order sanctioning

the estimate in question, and under the impression apparently that it was not a sanctioned work upon which a large expenditure had been already incurred.

3. There is also a provision of Rs. 30,000 in the current year's budget under Item 3, "Communications." This work is being continuously carried on with allotments provided in the budgets each year from the time it was sanctioned by Government.

4. The Local Fund Engineer states that this work has been given out on contract and is nearly complete, and that it is not feasible now to reduce the width of that section.

5. I therefore herewith resubmit the revised estimate with its enclosures, and request that the Board will be pleased to obtain the sanction of Government for the same, as a large sum is due to the contractors for the work already done.

6. I should be glad if the Board will communicate sanction to me by telegraph to enable payments to be made within the year.

Resolution—dated 22nd March 1883, Mis. No. 2582.

The revised estimate, submitted by the President, exceeding Rs. 5,000 in value, is submitted direct for the sanction of Government; the procedure laid down in paragraph 8 of G.O., dated 6th December 1882, No. 3211 W., for transmitting it to Government, in the Public Works Department, through the Superintending Engineer of the Circle, not being followed in the special circumstances of the case.

2. Pending Government sanction the President will be informed by telegram that he can disburse the amount allotted in the budget for the work.

(A true Copy and Extract.)

(Signed) J. A. DAVIES,
Acting Sub-Secretary.

ORDER—dated 3rd April 1883, No. 1015 W., Public Works.

The revised estimate, amounting to Rs. 1,82,300, for metalling that portion of the Hyderabad road between Colonel Anderson's Bridge and Pamarru, in the Kistna District, is sanctioned under the circumstances stated.

2. As a general rule, however, the Government must adhere to the decision expressed in G.O., No. 245 W., dated 20th January 1883, and previous orders, that a metalled surface of 12 feet is ample for a first-class road.

3. The present estimate exceeds by Rs. 17,700 the original one for Rs. 1,64,600, sanctioned in G.O., No. 763 W., dated 13th March 1879, and the increase is shown to be due chiefly to enhanced rates for and quantities of broken stone, &c.

4. This sanction has been registered as Local No. 1 W. of 1883-84 and cancels Local No. 241 B. of 1878-79.

(True Extract.)

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

To the Board of Revenue, with two Enclosures.

- „ Superintending Engineer, Second Circle.
- „ Accountant-General.
- „ Financial Department.

Ed. C. Howarth.

Spars Copies.

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of 1883 Madras.

PUBLIC WORKS.

Dated April, 3rd.

Recd.

Encl.

G.O., 3rd April 1883, No. 1015 W.

APRIL.

Hydrabad Road

The revised estimate of Rs. 1,82,500 for
metalling the portion of the — between Colonel
Anderson's Bridge and Pamarru, Kistna
District, sanctioned with remarks.

No 1122C

To

P W Deptt.

The Secretary to the
Board of Revenue.

Sir

With reference to the Revenue
Board's Proceedings No 1538 of
1st June 1883 I have the honor to
request that, under the orders
of the Board, you will be good
enough to call for and forward
to this Office the two estimates
with specifications, amounting
to Rs 41,980, and Rs 32,000 which
were returned to the L. F. Board
Mellore by the Superintendant, Second
Circle. This Office will then
perhaps be enabled to arrive at a
proper conclusion on the point of
controversy.

Chepauk }
13th June 1883 }

I have &c
Yrly C.B.
D.E.W.

14/6

G.O. 1015 W d/3-4-83
G.O. 245 W d/20-1-83
G.O. 3211 W d/6-12-82
" 1035 W d/26-4-82
No 357 C d/9-2-82
C.E. No 86 d/11-1-82
" 2427 d/21-10-81
G.O. 763 W d/13-3-79

No 1122 C d/13-6-83

BOARD OF REVENUE, 1ST JUNE 1883, No. 1538.

PROCEEDINGS OF THE BOARD OF REVENUE.

READ—the following letter from J. LEE-WARNER, Esq., President of the Local Fund Board, Nellore, to the Secretary to the Board of Revenue, Madras, dated 23rd May 1883, No. 52:—

I have the honor to submit the following report for the consideration of the Board, and with the request that the very early orders of the Government may be obtained thereon.

2. With his letter, No. 70 N.L., dated 25th May 1883, the Superintending Engineer, Second Circle, returns an estimate, amounting to Rs. 41,980, for restoring the road from Nellore to Kistnapatam. He remarks thereon among the objections: "The proposed method of construction by alternate layers of broken stone and gravel, I believe to be so radically wrong that I cannot sign the estimate." Similarly, and with the same objection, with his letter, No. 83 N.L. he returns another large estimate, amounting to Rs. 32,000, for metalling road from Náyudupet to Venkatagiri. Hoping to save delay, I at once wrote to the Local Fund Engineer to accept the method of road construction approved by the Superintending Engineer and to recast his estimates without loss of time. The Local Fund Engineer accordingly writes to me that, though he entirely disagrees with the principle of construction followed in the Department of Public Works, having tried his own method and found it eminently successful in practice, he will fall in with the wishes of his superior officer, only trusting that he may be held free from all responsibility in the event of failure for the adoption of principles which he does not approve. This is not very satisfactory; still less so when he informs me that out of forty-three estimates already prepared in accordance with the system to which the Superintending Engineer objects so strongly, thirty-nine concern flood repairs, and that he fears that there will be considerable delay before all of them can be recast and obtain final sanction. I submit a copy of his letter, No. 47, dated 16th May 1883, on the subject, as it shows from his point of view the difficulties under which a weak establishment must labor. What concerns me most now is the probable absolute stoppage of all works in the absence of sanction, and I have the honor to ask that I may be permitted to push on all the flood repairs at least, provided that the Local Fund Engineer recasts his estimates, as the Superintending Engineer requires, in anticipation of sanction.

3. In the last paragraph of his letter, No. 70 N.L., dated 25th April 1883, the Superintending Engineer observes: "Should the Local Fund Board not alter this (the method of Mr. Dumphy), I request you will forward the estimate and my report for the orders of Government through the Chief Engineer, Public Works Department." Mr. Rundall's report conforms to the ordinary practice of the Public Works Department in road-making. Mr. Dumphy's plan provides a bottom layer of flat stones to prevent the whole work from sinking; on the top of this three layers of metal, one above the other, gravel being grated between the interstices in the metal of each layer; and on the top of all $\frac{1}{2}$ " gravel. By this the road is made

Entd. in Receipt Rep.

similar to concrete with gravel instead of mortar; and resting on a platform, all tendency in it to crack or sink is minimized. I really see nothing objectionable in it.

ENCLOSURE.

From J. O. DUMPHY, Esq., Local Fund Engineer, Nellore, to the President, Local Fund Board, Nellore, dated 16th May 1883, No. 47.

With reference to your foot-note, No. 641, of 10th May 1883, on the Superintending Engineer's No 83, of 2nd May 1883, I have the honor to state that the estimates as per margin returned by the Superintending Engineer shall be thoroughly recast, exactly as he requires. If I had known beforehand what

Reconstructing Nellore-Kistnapatam Road.
Metalling Nayudupet-Venkatagiri Road.
Reconstructing Oollapalam-Vemulapad Pass.
Restoring Rajeeppalem-Iskapalli Road.

the settled views and principles were, I should have been happy to have been guided by them. As it is, I have been guided, if at all, by a bundle of estimates prepared many years ago by old Department Public Works Officers, and which estimates have been returned to me several times for the past two years because those officers failed to complete them. I have them with me now. In one of them, 9 inches of gravel on nothing but earth is determined upon. In another 2 inches of gravel over 4 inches of metal is adopted. In another, 6 inches of gravel only are used. Another has no specification at all. There are several others which are equally eccentric. At the same time, by adopting the principles now given me, I consider I shall be entirely free from all responsibility in the event of failure through the theory of construction. I believe the Ongole-Kottapatam, the macadamized portion of the Great Northern Road—notably in the Ongole Sub-division—the Gudur-Venkatagiri, and the Dornal roads, were, and are, well known instances of the utter failure of the systems upon which they were constructed, and no worse specimens of rotten roads could be seen anywhere. As for my theory, which for want of a better I have put in practice, I have only to refer you to the last mile of Kistnapatam Road; the new spreading done in accordance with my instructions on the Dornal Road; the present condition of the Gudur-Venkatagiri Road; and other pieces of new work done according to my instructions. I quite agree as to the necessity of rolling in preference to tamping, but I have no rollers to speak of. The large one in Nellore is claimed by Captain Henderson, who is loath to part with it. I have, I believe, though, seen a Government Order in which the Chief Engineer advocated tamping against rolling.

I am sorry to add that I have prepared forty-three estimates in accordance with these objectionable principles, including thirty-nine estimates for flood repairs; and unfortunately owing to various absences on leave, I shall be unable to alter some of them for a very long time. There is another great difficulty I labor under, and that perhaps the Superintending Engineer is unaware of, that is, the absence of competent men to carry out the alterations he desires. It is obvious that if the competent and well-trained officers failed to send in satisfactory estimates as I have just shown, it is perhaps too much to expect our Overseers, who mostly on the merit of having formerly done maistry work tolerably (?) well were placed in charge of taluks, to draw up estimates and compose the specification and reports to accompany them. It is not to be expected, too, that I can get a draughtsman on Rs. 45 (without any prospects) competent to check and correct estimates which can pass through the hands of the draughtsman on Rs. 80 to 100 (with prospects) in the Superintending Engineer's Office. If the Superintending Engineer is to check and control the works, it is most essential that we be provided with competent men on terms equal to those over whom he has direct control and check; otherwise, I fear that the extra establishment appointed in his office to check our work will have little to do beyond returning and returning our estimates for completion and correction. I, as you are aware, am obliged to send them in in a somewhat incomplete order to save the delays which would be inevitable if I returned them to the Overseers until I got all the data. The Iskapalli estimate, for instance, has been five months in the Overseer's hands and has been repeatedly returned for correction.

Up to date, no estimate has been sanctioned, and thirteen have been returned for correction.

RESOLUTION—dated 1st June 1883, No. 1538.

Submitted to Government, through the Chief Engineer, Public Works Department, for orders on the dispute regarding the construction of the roads.

2. With reference to the concluding sentence of paragraph 2 of the President's letter, it is observed that he has been already informed that he can arrange for the execution of emergent works (Board's Proceedings, dated 13th April 1883,

No. 2534). He can accordingly carry out these flood repairs in the manner pointed out by the Superintending Engineer, pending the orders of Government on this reference and in anticipation of sanction to the revised estimates.

(True Copies and Extract.)

Acting Sub-Secretary.

To the Secretary to Government, Public Works Department,
through the Chief Engineer,
President, Local Fund Board, Nellore District.

Exd. A. Raitt.

R.B.

Ask Secy ~~L.F.B.~~ to be
good enough to forward the
estimate & specification in
dispute together with S.E.'s report
thereon to enable the M.C.
to arrive at a proper conclusion
on the points in controversy

Cy
11/6

P.W.C. No. 4914

1883.

Board of Revenue,
MADRAS.

5 S.C

Printed June th.

Recd 11/6/83

Proceedings, 1st June 1883, No. 1538.

Sept 9/6/8

B. No 2199W 49-8-83

Submitting for the orders of Government
letter from the President, Local Fund Board,
Nellore, regarding the dispute between Super-
intending and Local Fund Engineers as to
construction of roads.

dm

No 966

Nellore
L.F. Board's office
15 July 83
Deposited 17/80

From

The President
Local Fund Board
Nellore

To

The Deputy Chief Engineer
P.W. Department.

Sir,

I have the honor to forward
herewith the estimate amounting
to Rs 41,900 and 32,000, referred to
in the Board's Proceedings No 4006 dated
20 June 1883.
+ sent in a packet
+ not coming to P.W.D.
19/7/83

I have the honor to be
Sir,
Yours most obedt Servt
J. S. S. S.
President.

PR
15/7

P. O. 1007-1-0

No 1007



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1122 C 13.6.83

J.W.C. No 6081

Recd 19/7/13

Ex 4

BO
No 2199W of 9-8-83

These documents are now submitted.

Clauses 8 + 9 of Mr. Dunphy's Specification + the details of Estimate based thereon are apparently the points to which J.E. took exception.

L.F. Engineer appears to have intended a ^{kind of} paved foundation over which metalling. & provides for latrine + 9 for quarry.

allowing such a paving as that provided to be necessary - and there is nothing to show it to be in the least needed - the method of covering with metal could not be successful.

In the case of the quarry which it is stated "is crushed with a moderate blow or weight" it is to be broken to 1" gauge. Over the bedding of large stones a 1" layer of thin metal + 2" inch of gravel. This to be tamped. Does it not strike L.F. Engineer that this metal would be at once pulverized; and that in this layer to ride with a horse? Then another similar layer, and then a third layer.

Mr. Dunphy characterizes certain D.V.W. Estimates of former years as "eccentric". They provided for work very commonly done, + the kind of covering proposed depended I presume on the class of road + the material available. At any rate precisely such have been carried out in Mysore successfully. And taking the word in its ordinary sense, Mr. D's ^{Specification} Estimate appears to me the most "eccentric" I have seen for some time.

S.W.

Approved - W.D.
amending

Cd.
24/7

gsm

27C

10/11/13 31/11/13

S.A.W.
draft C.S.
30/7

GOVT. } 188 . } P.W.
OF MADRAS. } DEPT.
SECRETARY.

CHEPAUK, *24th July* 1883.
OFFICE NOTE.

To *W.*

On 11th June came up a Resolution of Revenue Board dated 1st June, No 1538, submitting for orders of Government a controversy between the Suptg. Engineer, II Circle, & the L.F. Engineer, Bellare, regarding the construction of roads.

Two Estimates for repairing roads, one amounting to Rs. 41,980, the other to Rs. 32,000, prepared by the Local Fund Engineer had been returned to the Board by Mr. Randall with the remark — "The proposed method of construction by alternate layers of broken stone and gravel, I believe to be so radically wrong that I cannot sign the Estimate".

The L.F. Engineer then declined responsibility in the case of failure should the methods proposed by S.E. be adopted, maintained that his practice was correct & indicated the system of installing roads formerly carried out by the P.W.D. in the District.

I called for the Estimate & Specification in dispute & S.E. sent them as these documents were of course necessary to enable you to form a decision.

No 2199W PUBLIC WORKS DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Under date the *9th Aug 83*

Read the following

Proceedings of the Board of Revenue H.E. No. 1538 of 1st June 1883
Letter from the President L.F. Board Bellare }
Memorandum by the Chief Engineer P.W. D. }
No. 966 of 16th July 1883.
No. — of 9th August 83.

The foregoing remarks of the Chief Engineer will be communicated to the Board of Revenue for the information and guidance of the Local Fund Board Bellare.

2. The estimates in question should be revised in accordance with the Superintending Engineer's instructions.

To
The Board of Revenue
with 4 enclos. ✓ *C.S.*

" S.E. Second Circle ✓

Done (copy of Board's Proceedings 1538 of 1st June 83)
3/8

Public Works Department.
Madras 9th Aug 1883

Memorandum by the Chief Engineer P. W. D.

With their Proceedings
No. 1538 dated 1st June 1883,
the Board of Revenue sub-
mitted for the orders of
Government, thro' the Chief
Engineer, a controversy
between the Superintending
Engineer, Second Circle, and
the Local Fund Engineer,
Mellore, regarding the con-
struction of roads.

2. Two estimates for repairing
roads, one amounting to
Rs 41,980, the other to Rs
32,000, prepared by the
Local Fund Engineer had
been returned to the Board
by Mr. Randall with the
remark "The proposed
method of construction by
alternate layers of broken stone
and gravel, I believe to be
so radically wrong that I
cannot

By

cannot sign the Estimate."

3. The Local Fund Engineer then declined responsibility in the case of failure, should the methods proposed by Superintending Engineer be adopted, maintained that his practice was correct and ridiculed the system of metalling roads formerly carried out by the Public Works Department in the District.

4. The Chief Engineer called for the Estimate and Specifications in dispute as these documents were of course necessary to enable him to form a decision.

5. These documents have now been received and are submitted for the information of Government.

6. Clauses 8 and 9 of Mr. Dumphy's specifications and the details of Estimate based thereon are apparently the points to which Superintending Engineer took exception.

7. The Local Fund Engineer

Engineer appears to have intended a kind of paved foundation over which metalling ^{Clause 8} provides for laterite and ^{Clause 9} for quartz.

8. Allowing such a paving as that provided to be necessary and there is nothing to show it to be in the least needed the method of covering with metal could not be successful.

9. In the case of quartz which it is stated "is crushed with a moderate blow or weight" it is to be broken to 1" gauge over the bedding of large stones a 1" layer of this metal and $\frac{1}{2}$ inch of gravel. This is to be tamped. It does not appear to strike the Local Fund Engineer that this metal would be at once pulverized, and what is this layer to bind with or how? Then another similar layer, and then a third layer.

10. Mr. Dumphy characterized certain D. P. W. Estimates of former years as "Eccentric".

They provided for work very
commonly done, and the
kind of covering proposed
depended it is presumed
on the class of road and
the material available.

At any rate precisely such
has been carried out in
^{other districts} ~~the~~ successfully. And
taking the word in its
ordinary sense, ^{it is} Mr. Dampier's
specification ^{that} appears to the
Chief Engineer the most
"eccentric". ~~he has seen for~~
~~some time.~~

Q.

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S. C. W. T.

1/11/83

Encl. in Pref. Report