(1) Number of pages 42

(2) Date of repair Jan. 88

(3) Initials of the Referencer bvj

TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

P.W.D DEPARTMENT

G.O. No. B.P. No.	852-W.	Press. Mis.
Dated	19.3.1887	~~198~~.

Not to be folded or roughly handled

Archives I--10,006 I -80.

82/1

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

Read—the following papers :—

From H. P. GORDON, Esq., President of the District Board of South Arcot, to the Chief Secretary to Government, dated Cuddalore, 27th January 1887, No. 2.—Through the Superintending Engineer, V Circle.

I have the honor to forward, herewith, for the sanction of Government, an estimate, amounting to Rs. 5,225, for constructing a masonry bridge of one vent of 20-feet span to replace the temporary bridge on the 30th mile of what is called the Coast Road, *i.e.*, the road from Merkanam to the Coleroon along the coast.

2. The necessity for the work has been fully explained in the Local Fund Engineer's report accompanying the estimate.

3. I forward the papers mentioned below :—

1. Plan of culvert.
2. Do. of shutter.
3. Sketch plan.
4. Detailed estimate.
5. Abstract estimate.
6. Data.
7. Report.
8. Specification.
9. Copy of the resolution of the District Board, No. 3, dated 22nd January 1887, sanctioning the estimate.

From Colonel W. H. BURTON, R.E., Superintending Engineer, V Circle, to the Chief Secretary to Government, dated Chepâk, 10th February 1887, No. 5604.

I have the honor to submit, for sanction, under paragraph 2 of G.O., No. 1263 L.F., Financial, dated 5th October 1886, an estimate of Rs. 5,225, for constructing a masonry bridge of one arch of 20-feet span to replace the temporary bridge on the 30th mile of coast road, sent by the President of the District Board, South Arcot Circle.

No. 87.

Transferred to the Public Works Department.

(By Order.)

(Signed) W. S. MEYER,
Assistant Secretary.

Madras,
18th February 1887.

No. 744 C.

Referred back to the Superintending Engineer, V Circle, for favor of report whether there is any opening in the railway opposite the bridge, and, if not, whether the discharge through the bridge will not set directly on the railway embankment.

2nd March 1887. (Signed) J. O. HASTED, Colonel, R.E.,
Chief Engineer, P.W.D.

From Colonel W. H. BURTON, R.E., Superintending Engineer, V Circle, to the Chief Engineer, Public Works Department, dated Chepâk, 11th March 1887, No. 6109.

In returning your endorsement, No. 744 C., dated 2nd March 1887, I have the honor to report that the railway embankment has an opening in it of 200 feet by means of the girder bridge across the Old Coleroon opposite the site chosen for the proposed 20-feet culvert on the coast road.

2. The discharge through this culvert will drain into the Old Coleroon above the railway bridge, as the river is not embanked between the railway bridge and the road bridge, and the ground and south bank of the river is very low here. In fact, the river has no defined south bank here; there is no fear of any damage to the railway embankment from discharge from the proposed culvert.

3. The Old Coleroon is embanked on the south side above the road bridge and this and the road embankment is what confines the water to west of road and causes the breaching of the road.

4. A hand sketch of the ground, showing the road, railway, river, &c., is enclosed.

Order—dated 19th March 1887, No. 852 W., Public Works.

The estimate, amounting to Rs. 5,225, for constructing a masonry bridge on the 30th mile of the coast road, in the South Arcot district, is sanctioned.

2. This sanction has been registered as Local, No. 42 W. of 1886-87.

(True Extract.)

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

To the Local and Municipal Department, with nine enclosures.
" Superintending Engineer, V Circle.

Exd. E. Fernandez.
Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of 1887 Madras.

PUBLIC WORKS.

Dated March, 19th.

Recd. *Encl.*

G.O., 19th Mar. 1887, No. 852 W.

MARCH.

Bridge

Estimate of Rs. 5,225, for constructing a masonry — on the 30th mile of the coast road, in the South Arcot district, sanctioned.

8/3

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

General.
Establishment.

Nos. 43 & 44.

Order—dated 6th December 1882, No. 3211 W., Public Works.

In Proceedings of Government in the Financial Department, No. 609, dated 22nd March 1880, it was decided that the examination of plans and estimates of such Local Fund Works as might be of too important a character to be left altogether for disposal by the Local Fund Boards should devolve upon the Chief Engineer, who would be aided by an Executive Engineer of the Public Works Department to be attached to his office.

2. All *New Works* estimated to cost Rs. 2,500 and upwards, and all *Repairs* estimated to cost upwards of Rs. 10,000, as well as such other works as might require special professional scrutiny, were required to be submitted for examination by the Chief Engineer.

3. To meet the cost of the establishment requisite for undertaking the work thus devolving on the Public Works Department, a contribution from Local Funds of Rs. 21,250 yearly was sanctioned.

4. Temporary arrangements were accordingly made by the Chief Engineer for undertaking the work, and these were sanctioned in Proceedings, No. 918 W., dated 10th April 1880.

5. The arrangements thus approved were, however, objected to by the Government of India, who considered (*vide* paragraph 5 of their letter recorded with G.O., No. 2387 W., dated 16th October 1880) "that the Madras Provincial Establishment should be so organized as to permit the Chief Engineer's Office, or the offices of Superintending Engineers of Circles, to examine all important Local Fund Projects; that for conducting these duties no special allowance should be made to any officer, but a fixed contribution sufficient to cover the services performed should be credited to the source from which such establishment is paid; and that the full contribution of Rs. 21,250 should be accepted, and the duties distributed as the Madras Government may consider desirable."

6. After some correspondence with the Government of India the principle of the proposed arrangements was agreed to, and the decision recorded in G.O., No. 1729 W., dated 14th July 1881, paragraph 10.

7. Since then the details of the scheme have been under consideration, and it has now been finally determined that the work shall be distributed between Superintending Engineers and the Chief Engineer in accordance with the principle of the Public Works Code Rules.

8. All Local Fund Projects therefore requiring in future to be scrutinized by the Public Works Department will in the first instance be sent to the Superintending Engineer of the Circle, who will be authorized to deal finally with the professional details of *New Works* estimated to cost above Rs. 2,500 and up to Rs. 5,000. Those costing above this amount will be sent forward by Superintending Engineers to the

Chief Engineer after undergoing the same examination as ordinary Public Works. All *Repair* estimates above Rs. 10,000 will be dealt with by Superintending Engineers as in the case of Public Works Repairs. Any estimate may, however, be sent on to the Chief Engineer, should either the Superintending Engineer or the Local Fund Board concerned desire the opinion of that officer.

9. To admit of these arrangements being carried into effect, it will be necessary to slightly augment the offices of Superintending Engineers and the Chief Engineer, while improving the position of the senior Clerks in the offices of the former. Extra Draftsmen on a rate of pay superior to that hitherto provided for in the Public Works Department are also allowed. It is very desirable that men of superior attainments should be encouraged to qualify for the position of Draftsmen, and it is hoped that the enhanced rate of pay now sanctioned will act as some inducement.

Should the general standard of efficiency hereafter increase, the Government will be prepared to consider the propriety of still further augmenting the scale of pay in the higher appointments open to men of this class.

10. The following increases are now sanctioned to the offices of Superintending Engineers and the Chief Engineer, Public Works Department, the cost being covered by the contribution of Rs. 21,250 from Local Funds, which the Accountant-General will, under orders in the Financial Department, arrange for bringing to account with effect from the current official year:—

	RS.	RS.
Superintending Engineer's Office.		
(1.) Difference between present salary of Head Clerk and that now sanctioned, viz., between 2nd Class, 1st Grade, and 2nd Class, 3rd Grade = 180 — 110 =	70	
(2.) Difference between present salary of Second Clerk and that now sanctioned, viz., between 2nd Class, 3rd Grade, and 3rd Class, 2nd Grade = 110 — 70 =	40	
(3.) Extra Clerk, 3rd Class, 3rd Grade, Rs. 50 to 60—*mean*	55	
(4.) Extra Draftsman, from Rs. 80 to 100—*mean* ...	90	
Total per mensem ...	255	
Total per annum (Rs. 255 × 12) = ...	3,060	
For six Superintending Engineers (Rs. 3,060 × 6) = ...		18,360
Chief Engineer's Office.		
(1.) Extra Clerk, 3rd Class, 3rd Grade, Rs. 50 to 60—*mean*	55	
(2.) Extra Draftsman (to supervise Technical Section) from Rs. 200 to 250—*mean*	225	
Total per mensem ...	280	
Total per annum (Rs. 280 × 12) = ...		3,360
Total of Chief Engineer's and Superintending Engineer's Offices		21,720

(True Extract.)

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

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

Exd. W. J. Lewis.
Spare Copies

GENERAL.
ESTABLISHMENT.

Govt. of (1883) Madras.

PUBLIC WORKS.

Dated December, 6th.

Recd. *Encl.*

G.O., 6th Dec. 1882, No. 3211 W.

DECEMBER.

Local Fund Works

Plans and estimates for — to be scrutinized by the Chief and Superintending Engineers, and increases to their office establishment sanctioned.

5th October 1886, No. 1263 L.F., Financial.

E/6

GOVERNMENT OF MADRAS.

FINANCIAL DEPARTMENT.

Read—the following papers :—

Proceedings of the Board of Revenue, dated 31st March 1885, No. 1124.

Read—again Proceedings of the Board of Revenue, dated 29th April 1884, No. 1442.

Read—also the following papers :—

From the President, Local Fund Board,	Anantapur,	dated	6th June	1884,	No.	14.
„ „ „	„	„	23rd „	„	„	17.
„ „ „	Arcot, North,	„	14th Aug.	„	„	326.
„ „ „	Arcot, South,	„	29th May	„	„	38.
„ „ „	Bellary,	„	25th Sept.	„	„	—
„ „ „	Canara, South,	„	6th „	„	„	1254.
„ „ „	Chingleput,	„	27th May	„	„	31.
„ „ „	Cuddapah,	„	1st June	„	„	45.
„ „ „	Coimbatore,	„	10th May	„	„	317 L.F.
„ „ „	Ganjam,	„	16th Aug.	„	„	980.
„ „ „	Godávari,	„	23rd Sept.	„	„	86.
„ „ „	Kistna	„	23rd „	„	„	968.
„ „ „	Kurnool	„	16th May	„	„	19.
„ „ „	Madura,	„	23rd June	„	„	61.
„ „ „	Malabar,	„	1st Sept.	„	„	1045.
„ „ „	Nellore,	„	11th July	„	„	29.
„ „ „	Nílgiris,	„	28th May	„	„	34.
„ „ „	Salem,	„	21st „	„	„	1225.
„ „ „	Tanjore,	„	16th Aug.	„	„	1291.
„ „ „	Tinnevelly,	„	13th Dec.	„	„	145.
„ „ „	Trichinopoly,	„	2nd June	„	„	542.
„ „ „	Vizagapatam,	„	29th July	„	„	470.
„ Accountant-General,		„	21st June	„	„	62-L.F.D.
„ „		„	21st Feb.	1885,	„	186-L.F.D.

Resolution—dated 31st March 1885, No. 1124.

In G.O., dated 6th December 1882, No. 3211 W., Public Works Department, the contribution to be paid from Local Funds for the scrutiny of plans and estimates for Local Fund works by the Public Works Department was fixed at Rs. 21,250 per annum. The Board, however, observed in their Proceedings, dated 12th January 1883, No. 88, that as the number of estimates examined by the Chief Engineer in each year since the issue of G.O., dated 22nd March 1880, No. 609, was very small, the cost of the scrutiny for each estimate was proportionately heavy, and requested the Presidents of Local Fund

1880-81	.. ..	35
1881-82	.. ..	85
1882-83 (nine months)	.. ..	51
	Total ..	171

Boards to report, at the end of 1883, the number of cases in which it was found expedient to consult the Public Works Department, as it was thought that, as time went on, Presidents would avail themselves more freely of the services of Superintending Engineers. Again, in their Proceedings, dated 5th March 1884, No. 748, reviewing the operations of Local Funds for the year 1882-83, the Board remarked that the amount of contribution paid to the Public Works Department for the scrutiny of the estimates and plans for Local Fund works was excessive, being 23 per cent. of the outlay on works, the estimates for which were scrutinized by the Public Works Department, and promised to submit the matter for the orders of Government on receipt of the information called for from the Presidents in paragraph 3 of Board's Proceedings, dated 12th January 1883, No. 88, above referred to. The Government, in paragraph 11 of their order thereon, dated 10th July 1884, No. 1533, agreed with the Board in their opinion, and awaited the further communication promised on the subject.

2. As the district reports failed to supply adequate information on which to base an opinion in regard to the question whether Local Funds obtained a fair return for the contribution paid by them, the Presidents were requested, in Board's Proceedings, dated 29th April 1884, No. 1442, to furnish a statement in the form therein prescribed, and to this reference the above read letters are submitted in reply. Owing, however, to the numerous inaccuracies detected in these statements, the Board found it necessary to call upon the Accountant-General to furnish them with a statement of the expenditure incurred in 1883-84 on works whose estimates and plans were scrutinized by the Public Works Department, and from the figures given by him, the following statement has been compiled :—

Circles.	1882-83.				Percentage of column 5 to 3.	Percentage of column 5 to 4.	1883-84.		
	Number of estimates scrutinized and approved by Public Works Department.	Total value of the estimates.	Expenditure incurred on such estimates.	Amount contributed from Local Funds.			Number of estimates scrutinized and approved by Public Works Department.	Total value of the estimates.	Expenditure incurred on estimates approved in 1883-84.
1	2	3	4	5	6	7	8	9	10
		RS.	RS. A. P.	RS. A. P.				RS.	RS. A. P.
1. Anantapur	1	4,650	2,544 0 0	597 6 4	12·8	23·5	..	..	..
2. Arcot, North	1	14,708	800 0 0	187 14 0	1·3	23·5	3	21,938	11,732 2 0
3. Arcot, South	4	42,268	1,741 5 3	408 13 11	1·0	23·5	3	30,550	8,404 6 1
4. Bellary	2	11,992	3,806 4 1	893 13 3	7·5	23·5	..	..	..
5. Canara, South	3	47,507	14,384 14 5	3,378 4 1	7·1	23·5	3	50,500	13,593 2 0
6. Chingleput	..	..	..	..	..	..	..	..	..
7. Coimbatore	..	..	..	..	..	..	2	8,030	1,396 5 6
8. Cuddapah	..	..	..	..	..	..	1	6,400	..
9. Ganjam	..	..	..	..	..	..	2	20,560	10,763 4 4
10. Godávari	8	64,575	13,986 15 2	3,284 12 8	5·1	23·5	1	2,700	712 3 6
11. Kistna	2	1,85,208	23,935 1 10	5,621 0 8	3·0	23·5	4	89,303	24,106 0 0
12. Kurnool	..	..	..	..	..	..	..	..	..
13. Madura	1	22,260	..	..	..	..	1	11,800	3,400 0 0
14. Malabar	..	..	..	..	..	..	1	5,035	4,503 10 10
15. Nellore	..	..	..	..	..	..	4	1,58,215	26,062 11 4
16. Nilgiris	..	..	..	..	..	..	..	..	..
17. Salem	1	18,000	8,200 15 10	1,925 15 7	10·7	23·5	..	4,126	4,723 7 9
18. Tanjore	1	7,400	225 0 0	52 13 5	0·7	23·5	27	1,01,170	20,438 0 0
19. Tinnevelly	2	9,730	8,551 14 3	2,008 6 6	20·6	23·5	3	23,320	6,874 13 3
20. Trichinopoly	1	4,500	2,243 0 0	526 12 3	11·7	23·5	3	47,575	2,651 7 5
21. Vizagapatam	3	22,436	10,066 3 10	2,363 15 4	10·5	23·5	3	14,940	10,235 2 1
Total ..	30	4,55,234	90,485 10 8	21,250 0 0	4·7	23·5	61	5,96,162	1,49,596 12 1

Circles.	1883-84—*contd.*			Percentage of column 13 to 9.	Percentage of column 13 to 12.	Total.				Percentage of column 19 to 17.	Percentage of column 19 to 18.
	Expenditure incurred on estimates approved in 1882-83.	Total of columns 10 and 11.	Amount contributed from Local Funds.			Number of estimates.	Value of estimates.	Expenditure.	Amount contributed.		
	11	12	13	14	15	16	17	18	19	20	21
	RS. A. P.	RS. A. P.	RS. A. P.				RS.	RS. A. P.	RS. A. P.		
1. Anantapur	2,309 8 5	2,309 8 5	233 8 2	..	10·1	1	4,650	4,853 8 5	830 14 6	17·9	17·1
2. Arcot, North	2,434 4 2	14,166 6 2	1,432 0 0	6·5	10·1	4	36,046	14,966 6 2	1,619 14 0	4·4	10·8
3. Arcot, South	16,572 3 2	24,976 9 3	2,024 13 10	8·3	10·1	7	72,818	26,717 14 6	2,933 11 9	4·0	11·0
4. Bellary	7,971 14 2	7,971 14 2	805 13 11	..	10·1	2	11,992	11,778 2 3	1,699 11 2	14·2	14·4
5. Canara, South	12,220 12 1	25,813 14 1	2,609 7 8	5·2	10·1	6	98,607	40,198 12 6	5,987 11 9	6·1	14·9
6. Chingleput	..	..	..	..	..	..	..	..	..	..	..
7. Coimbatore	..	1,398 5 6	141 1 11	1·8	10·1	2	8,030	1,398 5 6	141 1 11	1·8	10·1
8. Cuddapah	1,991 12 4	1,991 12 4	201 5 11	3·1	10·1	1	6,400	1,991 12 4	201 5 11	3·1	10·1
9. Ganjam	..	10,763 4 4	1,088 0 1	5·3	10·1	2	20,560	10,763 4 4	1,088 0 1	5·3	10·1
10. Godávari	..	712 3 6	71 15 7	2·7	10·1	9	67,275	14,699 2 8	2,356 13 5	3·5	22·9
11. Kistna	863 0 0	24,969 0 0	2,524 0 10	2·8	10·1	6	2,74,511	48,904 1 10	8,145 1 6	3·0	16·7
12. Kurnool	..	..	..	..	..	..	..	..	..	..	..
13. Madura	7,414 0 0	10,814 0 0	1,093 2 6	9·3	10·1	2	34,060	10,814 0 0	1,093 2 6	3·2	10·1
14. Malabar	..	4,503 10 10	455 4 10	9·0	10·1	1	5,035	4,503 10 10	455 4 10	9·0	10·1
15. Nellore	..	26,062 11 4	2,634 10 2	1·7	10·1	4	1,58,215	26,062 11 4	2,634 10 2	1·7	10·1
16. Nilgiris	..	..	..	..	..	..	..	..	..	..	..
17. Salem	..	4,723 7 0	477 7 0	11·	10·1	1	22,126	12,924 7 7	2,403 6 7	10·9	18·6
18. Tanjore	1,079 0 0	21,617 0 0	2,175 1 5	2·1	10·1	28	1,08,570	21,742 0 0	2,227 14 10	2·0	10·2
19. Tinnevelly	..	6,874 13 3	694 15 7	3·0	10·1	5	33,050	15,426 11 6	2,703 6 1	8·2	17·5
20. Trichinopoly	..	2,651 7 5	267 15 9	0·6	10·1	4	52,075	4,894 7 5	794 12 0	1·5	16·2
21. Vizagapatam	7,760 8 0	17,995 10 1	1,819 2 10	12·2	10·1	6	37,376	28,061 13 11	4,183 2 2	11·2	14·9
Total ..	60,616 14 4	2,10,213 10 5	21,250 0 0	2·8	10·1	91	10,51,396	3,00,699 5 1	42,500 0 0	4·0	14·1

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3. It will be observed from the above statement that the percentage of the contribution paid from Local Funds has fallen from 23 in 1882-83 to 10 in 1883-84, the large decrease being due to the fact that the expenditure incurred on such works in 1883-84 was more than double that incurred in the preceding year. The foregoing remarks contrast the contribution with expenditure, but a fairer method is to compare the contribution with the vâlue of the estimates; the substitution of this process gives 4·7 and 3·6 as the percentages of 1882-83 and 1883-84, respectively. Even this rate is high when compared with that fixed in G.O., dated 28th April 1880, No. 871, for the preparation of designs and estimates for Government works by the Local Fund Engineering Establishment, viz., 5 per cent. on the amount of the estimate. From another point of view, it will be seen that in 1882-83 and 1883-84, Rs. 21,250 were each year contributed for the scrutiny of thirty and sixty-one estimates, which was at the rate of Rs. 708 in the former, and Rs. 348 in the latter, year, for the scrutiny of each estimate, which seems an unnecessarily high contribution, because the labor of preparation very much exceeds that of simple scrutiny. Under these circumstances, as materials for the formation of a definite opinion are at length before them, the Board resolve to recommend to Government that the contribution payable by Local Fund Boards to the Public Works Department for scrutiny of estimates shall be fixed at the uniform rate of 2½ per cent. of the value thereof.

(A true Extract.)

(Signed) C. F. MacCARTIE,
Acting Sub-Secretary.

To the Chief Secretary to Government, Financial Department,
with twenty-four papers, in original, to be returned.
,, all Presidents of Local Fund Boards.
,, the Accountant-General.

No. 32.

Referred to the Public Works Department for remarks.

(By Order.)

Madras,
2nd May 1885.

(Signed) M. HAMMICK,
Acting Under Secretary.

No. 155-E.

Memorandum.

Adverting to endorsement from the Financial Department, No. 32, dated 2nd May 1885, referring to the Public Works Department, for remarks, Proceedings of the Board of Revenue, No. 1124, dated 31st March 1885, embodying a suggestion that the contribution payable by Local Fund Boards to the Public Works Department for scrutiny of estimates should be fixed at the uniform rate of 2½ per cent. of the value thereof, the undersigned has the honor to observe that the charge of Rs. 21,250 per annum now made to Local Funds, when distributed among the various circles, appears to be by no means excessive. There are twenty-one Local Fund circles, and the average annual contribution from each circle is Rs. 1,000, or about Rs. 84 monthly. The average monthly charge to each Local Fund circle is thus little more than the pay of a second-grade overseer, and for this amount the Local Fund Boards obtain the professional advice of officers of long and varied experience.

2. It is greatly to the advantage of public interests that Local Fund Boards should be encouraged to avail themselves to the utmost of the professional experience which is placed at their disposal, and in this aspect it appears better that the contribution should be in the shape of a fixed annual sum, than in that of a percentage charge on the amount of the estimates forwarded for departmental scrutiny.

3. If the Financial Department considers the contribution now made by the Local Fund Boards to be excessive, this department is of opinion that the proper course is to reduce its amount, but not to substitute for it a percentage charge.

Ootacamund, (Signed) J. SHAW-STEWART, Col., R.E.,
28th May 1885. *Secretary to Govt., P.W.D.*

To the Financial Department, with its C. No. 103 L.F., returned.

From the Secretary to Government, Public Works Department, dated 28th January 1886, No. 369-C.

Abstract.—Forwarding statements showing the number and value of estimates for Local Fund works finally approved by Superintending Engineers during 1882-83, 1883-84, and 1884-85.

Order—dated 5th October 1886, No. 1263 L.F., Financial.

On a careful consideration of the foregoing papers, the Government are of opinion that the present arrangement should be discontinued. The sum of Rs. 21,250 now paid to the Public Works Department for the scrutiny of plans and estimates for Local Fund works covers the whole cost of an establishment engaged not only on local work but also on that of the Public Works Department, which is clearly unfair to the local boards. The Government accordingly accept the recommendation of the Board of Revenue that the contribution should in future be fixed at the rate of 2½ per cent. on the value of the estimates scrutinized by the Public Works Department. This arrangement will accordingly come into force from 1st April 1886.

2. The attention of all Presidents of District Boards will be called to No. 36 of the new Local Fund rules sanctioned in G.O., dated 26th June 1886, No. 721 L.F., under which only estimates for new works connected with buildings, drainage and masonry, and generally all works of a special or unusual character, amounting to upwards of Rs. 2,500, and for all other new works amounting to upwards of Rs. 5,000, need be sent to the Public Works Department for scrutiny.

(True Extract.)

E. F. WEBSTER,
Chief Secretary.

To the Public Works Department.
„ the Accountant-General.
„ all Presidents of District Boards.

88/8

No. 2818 W. 1/25 Oct 1886

Communicated
with advertence to
G.O. No. 3211 W. dated
6th Decr 1883, to the
Examiner P.W. Accts
in view to the necessary
adjustments being
effected; also to
Supdg. Engineer's
for information.

(Sd) J. O. H.
W

Exr. P.W. Accts
Supdg. Engrs

Govt. of {1886} Madras.

FINANCIAL.

Issued

Recd. Encl.

G.O., 5th Oct. 1886, No. 1263 L.F.

No. 2818 W. 1/25 Oct 188
B.M. 2818 dt 25/10/86

OCTOBER.

Scrutiny of Plans and Estimates.

Accepting the recommendation of the Board of Revenue that the contribution for the — for Local Fund works should, in future, be fixed at the rate of 2½ per cent. on the value of the estimates scrutinized by the Public Works Department; ordering that this arrangement be brought into force from 1st April 1886, and stating what estimates should be so scrutinized.

With order

1887

P. W. DEPARTMENT.

Current No. 1364

From The Local and Municipal Depts.

Enclos.— 10 (3 plans)

No. 87

Dated 18th February 1887.

Received 19th — do —

SUBJECT.

Masonry bridge on the 30th mile of Coast Road —

Transferring to P.W.D. an estimate of Rs. 5225 for constructing a —, South Arcot District.

DISPOSAL.

No. Dated

Referred back to the S.E. V Circle for further report whether there is any opening in the Railway opposite the bridge, & if not, whether the discharge through the bridge will not act directly on the Railway embankment.

(Sd.)

J. C. Hasted Clarke
Chief Engr. P.W. Dept.

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No. 2818 W. d/25 Oct 1886

Communicated with advertence to G.O. No. 3211 W. dated 6th Decr. 1883, to the Examiner P.W. Accts in view to the necessary adjustments being effected; also to Supdg. Engineer S. for information.

(Sd) J.O.H.
W.

Exr. P.W. Accts
Supdg. Engr. S.

G.O. 3211 W d/ 6-12-83
2818 W d/ 25-10-86

IV PWC No 1364

Masonry bridge on 30th mile of Coast Road S Arcot Dy./

The arrangement proposed is to prevent the flood water of the Coleroon passing through the bridge on to the land on the W side of the road — The highest level to which the flood water has been known to reach up against the E side of the road is 5' and accordingly a wall 5' high is to be constructed across the floor of the bridge, & provided with 2 shutters, to pass off the drainage from the W side of the road —

It would be advisable to provide more than 2 shutters, as at present designed only $\frac{2}{5}$ of the wall is provided with openings, & there is no reason why $\frac{3}{5}$ at least should not be opened out by means of shutters.

The wall in which the shutters are placed might be better placed on the down stream side of the bridge —

The shutters as shown in the detailed drawings, are suspended by axles at 1'8" from the top of the shutter

No. 2818 W. 1/25 Oct 1886

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(Sd) J. O. H.
W.

Exr. P.W. Accts
Supdg. Engr. S.

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there seems to be no objection in thus hampering them, and as regards fixing them it will be found easier to suspend them from axles at the top of the shutter. —

It is therefore suggested that the plans be sent to [illegible] with a note regarding the these proposed alterations

25 2 87

I have no objection to the plan as it stands, but there is one point on which explanation [illegible] be necessary, there is nothing to show [illegible] there is any opening in the railing opposite the bridge & the discharge through the bridge may be materially [illegible] abutment on the railing

28/2/87

Public Works Department.

Current No. 1364

Letter No. 87

Dated the 18th February 1887

From the Secretary to Govt. Finan
Depart.

NOTE OF REMARKS

1. The accompanying plans and estimate provide for constructing a masonry Bridge on the 30th mile of what is called "the Coast Road" in the South Arcot District. The estimate amounts to Rs 5,225.

2. The proposed bridge is one of a single segmental arch of 20 feet span and 5 feet rise. The height up to springing line above floor level is 8 feet. The abutments are to be 21 feet long and 4 feet wide — each abutment being strengthened by three counterforts or buttres The wing walls run lengthwise with the abutments for a length of 21 feet — the end however of each wingwall receiving a splay outwards of 4½ feet with a return of 6 feet. The depth allowed to the masonry foundation

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(Sd) J.O.H.
W

Exr. P.W. Accts
Supdg. Engr. s.

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of abutments, counterfort
wingwalls is 3 feet restin
masonry wells sunk to a
depth of 9 feet. A floorin
-cisting of 1 foot thickn
of masonry resting on a sha
of concrete 2 feet thick is to
provided between retaining
walls which run in line
with the returns of the wing-
walls. The retaining walls
are 1½ foot wide and 3 feet
deep and rest on masonry
wells similar to those of the
abutments. A brick in morta
body wall, or dam, 2 feet thic
and 5 feet high is to join
the eastern or downside
extremities of the two abut-
-ments. The object this wa
or dam is intended to serve
is the protection of the culti-
-vated lands on the western
side of the road by shutt
off from them the collect
flood waters when they ba
up against the eastern side
of the road. The wall is
provided with 2 vents—
each 4 feet by 5 feet and

closing

---

closing with a selfacting shutter. The width allowed to roadway between parapet walls is 18 feet.

3. An examination of the sketch map shows that the site chosen for the proposed bridge is somewhat peculiar while the other documents submitted cannot be said to give clear and satisfactory reasons for such a choice. Also, the extent of waterway allowed appears in the present instance to be based on grounds almost purely arbitrary — Indeed, such information as is offered in the accompanying plans and papers on the two important points of site and waterway may fairly be termed confused and unsatisfactory. — However it must not be forgotten that S.E.V. who probably has some personal knowledge of the locality, appears to accept the design as answering, atleast sufficiently well, all requirements of the case.

4. Calculated by formula

$E = \left(1 + \cdot 212\,(2s)\right)\sqrt{\frac{l}{L}\times\frac{2s}{h+e}}\,\Big)$ feet

the width of an abutment should here be 6.39 feet while that allowed is 4 feet but subject to approval the additional strength obtained by the narrower abutment from the three buttresses provided (each buttress being 3 feet square and 9 feet high) safely compensates for its inferior width. — Of course, by setting the wingwalls at right angles to the transverse axis of the bridge, or even by giving them a far greater splay than that now arranged for adoption, they might be made to act in place of the counterforts at the ends of the abutments, but circumstances possibly warrant their proposed relative position with the abutments, though what those circumstances are is no where stated.

5. Forty wells are provided for. Each well being allowed an inner diameter of 4 feet and an outer diameter of 5 feet and a depth of 9 feet. The circular shell, 9 inches thick, is to be of brick in mortar and is to be filled in with concrete. The cost of each well is set at Rs. $52\frac{3}{4}$ — which may be accepted as fair. Cement plastering is provided for. By some oversight no provision is made for metalling. However this item cannot cause a heavy increase in the estimated cost of the bridge.

6. The rates are fair — The plans and estimate are countersigned by the Vice President of the District Local Fund Board, and are approved in the Financial Department.

BH
24/2/87

Proceedings of the District Board
South Arcot passed at a meeting
held on Saturday the 22nd January 1887

Present

H. P. Gordon Esquire President

Official Members

Surgeon Major A H. Leapingwell District
Surgeon

M. R. Ry. T. V. Narayanasami Aiyar
avargal Rao Bahadur Vice President

" C. Kalyanasundaram Chettiar avl
Rao Saib Treasury
Dy Collector

Non Official members

C. H Greswell Esquire
M. R. Ry Palanimuthu Udayar avl Rao Saib
" Muthukumarappa Reddiar " "
" Balakrishna Naidu " "
" Seshachala Naidu " "
" Srinivasa Aiyangar " "
" Tyagaraja Nainar " "
" Balakrishna Reddiar " "

M.R.Ry B. Krishnier avl. B.A. Rao Saib
" C. Ramasami Pillai avl.
Hazarath Lalkhan Saib Khan Saib " Pensioned
Subadar Major
" Makhdum Ali Saib Khan Saib
" Ali Hussain Saib
" Patel Mohamad Nyna Merkayar " Kazi of G.

No 3. Read letter No 404 dated 7th Instant from the Local Fund Engineer forwarding for sanction an estimate for Rs 5225 for constructing a masonry bridge of one vent of 20 feet span in the 30th mile of coast road.

Sanctioned

(Signed) H. P. Gordon
President

(True copy)

Vice Presidt. for
President

South Arcot

President's Office
Cuddalore

No 2 - Dated 27th January 1887

From

H. P. Gordon Esquire
President, District Board
South Arcot

Encl 9

To

The Chief Secretary to Government, Local and Municipal Department, thro' the Superintending Engineer 5th Circle

Sir,

I have the honor to forward herewith for the sanction of Government an estimate amounting to Rs 5225 for constructing a maso bridge of one vent of 20 feet span replace the temporary bridge on the 30th mile of what is, called the coast road i.e. the road from Meekan

to

to the Coleroon along the coast.

2. The necessity for the work has been fully explained in the Local Fund Engineer's report accompanying the estimate.

3. I forward the papers mentioned below.

1. Plan of culvert.
2. D° of Shutter.
3. Sketch plan.
4. Detailed estimate.
5. Abstract estimate.
6. Data.
7. Report.
8. Specification.
9. Copy of the resolution of the District Board N° 3 dated 22d January 1887 sanctioning the estimate.

I have the honor to be
Sir
Your most obedient Servant

S V Narayanasawmi

Vice President for Pre

No 6765
2/87

From
The President
District Board
South Arcot

To The Chief Secretary to
Government
Local & Municipal
Department Madras
thro' the Superintending
Engr. V Circle Madras

Dated 27—1—87
Despd. 29—1—87

Encl. 9 (3 Plans a separate packet)

No 2

Forwarding for sanction of Government an estimate amounting to Rs 5225 for constructing a masonry bridge to replace the temporary bridge on the 30th mile of Coast road.

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12 Feb. 3[illegible]/87

Ed. 8-2-87

SUPERINTENDING ENGINEER'S OFFICE,
V CIRCLE, MADRAS,
Chepák, 10th February 1887.

No. 5604

From
Colonel W. H. Burton R.E.
~~The~~ SUPERINTENDING ENGINEER,
V CIRCLE,

Local & Municipal Dept.
CURRENT No. [illegible]

To
THE Chief Secretary
to Government

SIR,

I have the honour to submit for sanction under para 2 of G. O. No 1263 L. F. Financial dated 5th October 1886, an estimate of Rs 5225 for constructing a Masonry Bridge of one arch of 20 ft span to replace the temporary Bridge on the 30th Mile of Coast road sent by the President of the District Board South Arcot Circle.

Enclosures.
1 Orgl. letter from the President D. B. No 2 dated 27th Jany 87 to the Chief Secy to Govt.
1 Proceedings of the District Board No 37/22/1/87.
1 Data
1 Specification
1 Report.
1 Detail and Abstract Estte.
1 Plan of Culvert
1 Do of Shutter
1 Sketch plan

I have the honour to be
Sir,
Your most obedt Servt
W H Burton Coll R.E.
Superintending Engineer
5th Circle

P. W. Dept.
To be returned with reply.

From
THE SUPERINTENDING ENGINEER,
V CIRCLE,

To
THE Chief Secretary
to Government
Fort St. George

No. 87
Transferred to the Public Works Department
(By Order)
Assistt Secretary

Madras
18th Feby/87

11/2/87

Dated 10th } February
Recd. 11th }

ENCLOSURES, 9

FEB 87

No. 5604

No. 744 C of 2nd March/87

Referred back to the Supdg Engineer V Circle for favour of report whether there is any opening in the Railway opposite the bridge, and if not whether the discharge through the bridge will not set directly on the railway embankment

Colonel R.E.
Chief Engineer P.W. Dept.

Masonry bridge on the 38th mile of Coast Road — Submits for sanction an estimate of Rs 5225 for constructing a — South Arcot District.

(with endorsement)

No. 6109

Superintending Engrs Office
5th Circle Madras
Chepauk 11th March 1887

From
Colonel W. H. Burton R.E.
Supg: Engineer
5th Circle.

To
The Chief Engineer
P. W. Department.

Enclosure 10

Sir,

In returning your endorsement No. 744 C dated 2nd March/87 I have the honor to report that the Railway Embankment has an opening in it of 200 feet by means of the girder bridge across the old Coleroon opposite the site chosen for the proposed 20 feet Culvert on the Coast road.

2. The discharge through this Culvert will drain into the old Coleroon above the Railway Bridge, as the river is not embanked

embanked between the Railway bridge and the Road bridge, and the ground and South bank of the river is very low here, - In fact the river has no defined South bank here, there is no fear of any damage to the Railway Embankment from discharge from the proposed Culvert.

3. The old Coleroon is embanked on the South side above the road bridge and this and the road embankment is what confines the water to west of road and causes the breaching of the road.

4. A hand Sketch of the ground showing the road - railway - river &c. is enclosed.

I have the honor to be
Sir.
Your most obdt. Servt.
W H Kirton Col. R.E.
Supdg Engineer 5th Circle

P.W.C. No. 2031 F

From

The Superintending Engineer
Vth Circle

To

The Chief Engineer
P.W. Department

No. 3211 W d/6.12.82
" 2818 W d/25.10.86

Dated 11th }
Recd 12 } March 1887.

No. 6109.

Enclosures 10 4/12 (+4 plans)

Masonry bridge on the 30th mile of Coast Road, South Arcot District.

Returns the estimate for a —— and reports that the Railway Embankment has an opening in it, opposite the site chosen for the proposed culvert

---

B & R
d walker

PUBLIC WORKS DEPARTMENT.

No. 852 W

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the 19th March /87

READ the following

From the President, District Board, S. Arcot ... } (Rc. No. 2 dated January 27. 1887)
" " S.E. V Circle ... (" " 5604 dated Feby. 10 ")
Endorsement by the Local & Municipal dept. ... } (" " 87 dated " 18 ")
From the S.E. V Circle ... (" " 6109 dated March 11 ")

The estimate amounting to Rs 5225 for constructing a masonry bridge on the 30th mile of the coast road in the South Arcot District is sanctioned.

Nis

2. This sanction has been registered as Local No. 42 W of 1886-87

WCV
14.3.87

JOC
14/3/87

Wly

14/3/87
Maj

L & M. Deptt
with 9 enclosures

S. E., V. Circle, Dd 29/3/87

To The Chief Secretary for favour of countersignature

CE

80/47

2031

Govt. of [1887] Madras

PUBLIC WORKS.

11/3/87

Dated

Recd. Encl.

G.O., 19th March 87, No. 852 W

Bridge

III

Estimate of Rs 5,225
for constructing
a masonry —
on the 30th mile
of the coast road
in the South Arcot
District sanctioned

5/4

See 19/3