

MADRAS RECORD OFFICE.

Government of Madras.

Revenue DEPARTMENT.

G.O. No. 1132

Press
~~Mis.~~

Dated 27—4—1868.

Not to be folded or roughly handled

*Proceedings of the Madras Government, Revenue Department,
27th April 1868.*

No. 609. Read the following Proceedings of the Madras Government in the
Public Works Department:—

Ordering all expenditure on the Chembrumbak-
kam tank to be stopped, in order to correct
an error in the design for improving and en-
larging the same. (Here enter 21st April 1868, No. 1,205.)

No. 610. ORDER THEREON, 27th April 1868, No. 1,132.

Irrigation No. 5.

Communicated to the Revenue Board.

(True Extract.)

(Signed) F. BRANDT,
Under Secretary to Government.

To the Board of Revenue, with Proceedings Public Works Department, No. 1,205.

Exd. S. T. Augustin.

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*Proceedings of the Madras Government, Public Works Department,
21st April 1868.*

Read the following papers :—

No. 344. Endorsement of the Superintending Engineer, 4th Division, dated Madras, 3rd April 1868, No. 81.

From the Acting Assistant Engineer in charge of Chembrumbakkam Tank Project, to the Superintending Engineer, 4th Division, dated Camp at Chembrumbakkam, 24th March 1868, No. 51.

1. Herewith I have the honor to submit a Longitudinal Section of the supply channel from the Kuam river to the Chembrumbakkam tank, which was handed to me a few days since by the Assistant Engineer in charge of the Mount Range. You will not fail to perceive in this section, that the red line marked upon it as "level of proposed calingulah crest," is some three feet six inches above the road-way at the bridge, which carries Trunk Road No. 1 over this supply channel at the 17th mile from Madras, and that it does not touch ground until it reaches 26,800 feet from the tank, and 15,300 above the bridge.

2. As this section is signed by Mr. William Fraser, C. E., and as it has been lately checked by the Draughtsman of the Mount Range, whom Lieutenant Dorward employed for that purpose, there can be no reasonable doubt of its correctness.

3. Thus, when the water in the Chembrumbakkam tank reaches the height of the crest of the proposed calingulah, the lands on both sides of the supply-channel below this level, as far back as the Vellavade bridge, will be submerged. What area this will amount to is now being ascertained, but there can be no question that it will be of such extent as to materially affect the cost of the project, the execution of which has been entrusted to me. This land is all Nunja, being irrigated by the "Naman" and other smaller tanks, and is therefore very valuable. There are also four villages that will, I fear, be submerged, and the compensation to be paid will doubtless amount to a very large sum.

4. I feel it my duty to bring this matter officially to your knowledge without further delay, as there is no provision whatever made in the estimate to meet the large outlay that would thus be required, in order that if it be thought desirable and found practicable that a supply-channel on a higher level be excavated, or if the present channel be retained, that arrangements may be made for providing the necessary funds to meet the charge of compensation.

5. In conclusion, I would request that the supply-channel, as well as the other portion of the project, may be placed in my hands, as I cannot think it is for the interest of Government, and if by no means satisfactory to me, that the work should be paid for, and carried out at once.

No. 5,806.

Forwarded in original to Mr. Fraser, C. E., with a request that he will be good enough to favor the Superintending Engineer with any observations that he may wish to make, and send them if possible by return of post.

(Signed) A. J. M. BOILEAU, Colonel, R. E.,
Superintending Engineer, 4th Division.
MADRAS,
26th March 1868.

*Proceedings of the Madras Government, Public Works Department,
21st April 1863.*

From W. FRASER, Esq., C. E., Executive Engineer, to the Superintending Engineer, 4th Division, dated Madras, 1st April 1868, No. 2.

1. I have the honor to return the Longitudinal Section of the supply-channel from Koratur to Chembrumbakkam tank, and Mr. Lowry's letter which accompanied it, and which you were kind enough to send to me for any remarks I had to make.

I have nothing to say except to express my regret that such a very serious omission should have occurred in my report on that project. The levels I had before me, when I prepared the Memorandum of the works required, showed that the crown (intrados) of the centre arch of the bridge on the Trunk Road was 24 feet above the level of the present calingulah, so that although I was aware that the high water would pass up under the bridge for a short distance, I did not consider it necessary to make any allusion to it.

2. The section, herewith returned, was not prepared at that time, but subsequently, for the purpose of the river and channel improvements, the consideration of which was meant to be taken up afterwards; and I believe I never saw it until it was brought to me for signature a short time ago, when I directed all these plans to be sent to your Office. I never examined it.

3. Although in omitting the consideration of the submerging of the bridge and the lands on the north side of it, I was misled by the levels there before me, I cannot of course look on this as a sufficient excuse for so grave an omission, the more especially as I was aware that the levels had not been checked.

This was one of the few cases in which I accepted the results without a personal check of some kind; but the monsoon had broken, and I was obliged to call all my party in from the field.

I have again to express my regret at this circumstance, and to request that you will be good enough to let me know what propositions are made to meet the difficulty which has arisen.

Section.

1. Submitted to Government for information.

2. The Superintending Engineer will report further when it is approximately known how much is now being undertaken what additional sum of money to that already sanctioned will be required to carry out the project in its entirety, but it is feared that the serious mistake pointed out in this correspondence will lead to the almost total abandonment of the project.

3. The documents are herewith forwarded by Mr. Fraser to Government, and the same are not to be put under scrutiny in this office. However, the section now forwarded has been only comparatively recently prepared.

(Signed) A. J. M. BOILEAU, Colonel, R. E.,
Superintending Engineer, 4th Division.

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21st April 1863.*

No. 345. Endorsement of the Superintending Engineer, 4th Division, dated Madras, 3rd April 1868, No. 82.

From the Acting Assistant Engineer in charge of the Chembrumbakkam Tank Project, to the Superintending Engineer, 4th Division, dated Camp at Chembrumbakkam, 1st April 1868, No. 58.

1. I have been to the Red Hills, and have seen a considerable portion of the Madras Water Works in company with the Executive Engineer, Captain A. de C. Scott, who very kindly gave me all the information I required as to the rates obtaining for the different kinds of work. I have the honor to submit a comparative statement showing the cost per cubic yard on those works, and the rates sanctioned in the estimate for Chembrumbakkam Tank project.

2. By this statement it will be seen that, the rates actually paid in the case of the Madras Water Works for earth-work are from 29 per cent. to cent. per cent. in excess of those allowed in the estimate for the Chembrumbakkam work; while I am convinced, after a careful inspection of both bunds, that there is greater difficulty in the way of executing the latter, as for a length of fully 12,000 feet there is little or no soil obtainable on the outer side of the bund, and it will have to be excavated on the bed of the tank, and carried an average distance of 100 yards, and this is all gravel.

3. Again, laterite stone for the revetment, in the case of the Madras Water Works, is found at both tanks immediately in the neighbourhood of the bunds, where it is required, so that with the exception of one comparatively short length of new bank, I would say the cartage does not average more than one mile, if so much, and the rate being paid for this is Rupees 2½ per cubic yard, while in the estimate for the other work, the rate allowed is Rupees 1½ or 42 per cent. less, and the average distance it will be necessary to cart the stone is not less than 3½ miles.

It is true that if there was water in the tank, the stone might be rafted or boated from the quarries to where it is required, at a low rate, but there is no water, and it must be remembered that now when the tank is empty is the time to get the foundation and lower courses of the revetment and the bund built in. I think it will be admitted that enough is known to prove that either there is too much being paid for the work at the Red Hills, or the rates in the Chembrumbakkam tank estimates are too low. Captain Scott informed me that finding the Contractors for the revetment granular at the rate of 2½ Rupees per cubic yard, he took measures to ascertain what he could get for the stone work for, and the result was a cost of Rupees 3 per cubic yard, and that he had applied that this might be a rate. I do not think the rate given for the revetment by Captain Scott is a high one, as the work is of first-rate quality, and fact is a suggestion of some stone bank is not to be without examining it. I would suggest that the work of so high and expensive a quality will be necessary in the case of the project for which I am placed in charge. I feel convinced that laterite dressed, as the stone is now being used in the Red Hill tank revetment, could not be built into the Chembrumbakkam tank for less than Rupees 3 per cubic yard when the extra cartage is taken into account, and as the increase in this one item alone would involve an extra

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expenditure of Rupees 72,997, I think it is worth consideration whether stone somewhat more roughly dressed might not be permitted, as such I believe might be had at a lower rate, and although it would not look so well, would be strong and substantial.

4. I need hardly point out that where so great a difference exists in the rates on two works so contiguous and similar in character, much progress need not be expected on that where they are least; I would, therefore, respectfully request that the rates may be to a certain extent equalized on the two projects, in order that I may have a fair chance of pushing on the work on that entrusted to me.

No. 59.

Comparative Statements of the rates obtaining on the Madras Water Work Project and the Estimated rates for similar work required to be executed on the Chembrumbakkam Irrigation Project.

		Madras Water works Project Rates.		Chembrumbakkam Irrigation Project Rates.	
Earthwork ...	from to {	Per C. Yd.	Rs. A. P.	Per C. Yd.	Rs. A. P.
Revetment ...	...	...	0 2 7	...	0 2 0
Puddling ...	...	...	0 4 0	...	1 12 0
Graveling ...	...	...	*2 8 0	...	0 6 0
			0 6 to 8 0		0 2 to 4 0
			0 3 to 4 0		

* Recommended to be increased to Rupees 3 per cubic yard.

(Signed) R. J. LOWRY,

Acting Assistant Engineer,

In charge of the Chembrumbakkam Tank Project.

CHEMBRUMBARKAM,
1st April 1868.

- Submitted to Government for information.
- It will be observed that quite irrespective of the circumstances reported in Endorsement No. 81, dated 3rd April 1863, in connection with the serious mistake discovered in the contour levels of the Chembrumbakkam Tank project, the rate for the work will be enhanced by about 80,000 Rupees, owing to the insufficiency of some of the rates.
- A supplemental estimate will be forwarded in due course.

(Signed) A. J. M. BOILEAU, Colonel, R. E.,
Superintending Engineer, 4th Division.

ORDER THEREON, 21st April 1868, No. 1805.

IRRIGATION, No. 11.

- Government regret to learn that an omission has been made in the design for improving and enlarging the Chembrumbakkam tank, which was sanctioned for execution by the Government of India on the 25th October 1867, at an estimated cost of Rupees 3,55,435. It appears that Mr. Fraser's survey was confined to the basin of the tank itself, a carefully contoured plan of which was submitted to Government with his report and estimate. Had the contours been continued up the supply-channel, it

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would have been ascertained that the channel shortly before it entered the tank passed through a high and narrow ridge, and that higher up its course it traversed a tract of low ground—forming in fact a second basin but little above the present full tank level, and which, if the project were carried out according to Mr. Fraser's design, would be submerged to the depth of about 15 feet. The Assistant Engineer in charge is now employed in ascertaining the extent of the tract in question, and on the receipt of a report from the Superintending Engineer embodying the information he obtains, the Government will have the means of judging to what extent the design will have to be modified. As it is evident however from the above reports that, both as regards the height of water to be provided for, and the rates at which the work can be executed, the project will require to be entirely reconsidered and revised, the Superintending Engineer will meanwhile cause all expenditure to be stopped.

(True Extract.)

[Signature]

Colonel, R. E.,

Secretary to Government.

To the Superintending Engineer, 4th Division.

- .. Controller of Public Works Accounts.
- .. Accountant General.
- .. Revenue Department.
- .. Committee appointed to report on the Junction Canal Project.

Ed. S. T. Augustin.

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Proceedings of the
Court. 1868. D. 1/11/11

Placed 2107. 9/21/11
Received 222. 7/21/11

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Ordering all expenses
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Committee to the
Revenue Board

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