

Local & Munl. (1895.) Department.

MISCELLANEOUS.

G.O., No. 1067 L.

DATED 21st June 1895

[Despatch Abstract.]

Vikrayandi Anicut Channel.

Recording G.O., Public Works Department, sanctioning, with remarks, the estimate of Rs. 3870 for improvements and additions to the South Arcot division.

BACK PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

[7

Miscellaneous.

LOCAL AND MUNICIPAL DEPT.	
G.O., DATED	21-6-95
No.	10672

INDEXED.

When given for copying.

[Despatch Abstract.]

Vikravandi Amicut channel
Recording G. O. P. W. D.
sanctioning with remarks the
estimate of Rs. 3870 for im-
provements & additions to the
South West Divn.

✓

READ AGAIN ORDER OF GOVERNMENT, DATED
189 , No. , MISCELLANEOUS.

BACK PAPER, No.

189

FURTHER PAPER, No.

OF 189

ENCLOSURES.

CURRENT No.

STATEMENT WITH DITTO.

ORDER OF GOVERNMENT

STATEMENT WITH DITTO.

PAPERS NOT FILED UP, BEING MEANT FOR DESPATCH
IN ORIGINAL (not paged).

N.B.—

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Examined by

28TH MAY 1895, No. 439 I., PUBLIC WORKS.

GOVERNMENT OF MADRAS.
PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

READ—the following paper :—

From J. C. LARMINIE, Esq., Superintending Engineer, V Circle, to the Chief
Engineer for Irrigation, dated Pennuggur, 17th February 1895, No. 54 E.I.

Adverting to your memorandum No. V/65 S.A. of 3rd October 1892, I have
the honour to submit, for sanction and
allotment of funds, the marginally-noted
plans and estimate of Rs. 4,480 for im-
provements and additions to the Vikra-
vandi anicut channel, an irrigation work
common to British and French ryots in
the South Arcot division.

- 1 Sketch showing head works.
- 4 Sheets of levels.
- 1 Plan of calingulah.
- 1 Plan of new head sluice.
- 1 Plan of existing head sluice.
- 1 Estimate (D and A).
- 1 Hydraulic details.
- 1 Note of calculations.
- 1 Copy of correspondence.

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2. The approval of the French Gov-
ernment has been obtained through the
Special Agent, South Arcot, to the execu-
tion by this department of the proposed
works, which are considered absolutely

necessary in the interests of ryots under both Governments.

3. Under the convention of August 1868 the cost of the proposed works will be
borne in the proportion of $\frac{2}{3}$ by the British and $\frac{1}{3}$ by the French Government.

4. A copy of the Executive Engineer's letter, No. 313 of 5th June 1893, and my
endorsement thereon, No. 295 M. of 2nd July 1893, forwarding the plans and estimate
to the Special Agent, South Arcot, is forwarded for information.

ENCLOSURES.

From the Executive Engineer, South Arcot Division, to the Superintending Engineer, V Circle,
dated 5th June 1893, No. 313.

With reference to the correspondence as per margin, I have the honour to resubmit the
plans and estimates prepared by the French Gov-
ernment. The French estimates amount in all

Enclosures 18.

to 6,000 francs, equivalent, if the franc be taken as 10 pence, at the present rate of exchange, to
Rs. 4,000. Estimated according to the rates of this division the cost of the two works is only
Rs. 2,200. I submit the estimates as prepared in this office. The French rates would appear
to be exorbitant, but, possibly, the value I have given to a franc may be erroneous.

2. The French proposals are in conformity with the convention of 12th August 1868, but
after a careful inspection of the channel on the 2nd December, I am of opinion that their
proposals may with advantage be somewhat modified.

3. I forward a sketch showing the anicut, the channel with its surplus works and the
present head sluice or Thoravi bridge, also a longitudinal section of the channel; from this it
will be seen that the fall from an old head sluice a little below calingulah to prevent head sluice
is 2.5 feet.

4. Taking crest of anicut as + 50, the known M.F.L. is + 55; as the head sluice sill is 42.57,
it is evident that, when this sluice is closed and a maximum flood is passing down the river, a
depth of nearly 13 feet of water is possible at the sluice, as the leading channel is under these
circumstances merely a tank. In this event every thing depends on the timely working of the
surplus sluice, and failure to work this has more than once caused a breach in the channel.

5. In my opinion the proper arrangement would be to move the head sluice higher up the channel placing it at the site of the old sluice (*vide sketch*) and discharge all surplus water over the calingulah.

6. The acceptance of this proposal will, however, not do away with the necessity of either repairing or rebuilding the Thoravi bridge.

7. This bridge, however, is not a very important structure, the road passing over it being merely a village road.

8. I have examined the bridge and am of opinion that it need not be entirely rebuilt, and I am submitting an estimate for its reconstruction from floor level.

9. The bridge is an arched one, the span being 12' 3"; it has straight wings, the foundations are in good order, and so are the wings for the greater portion of their length; the damage is having bulged out; the bulging on the down stream side is much greater than on the up stream side; this is due to the support given to the upstream face by water pressure intermittently and by the additional masonry constructed in connection with the shutters.

10. I am of opinion that it will be sufficient to dismantle the centre portion and rebuilt as shown in plan No. 3; a tie wall is allowed on either side in rear of abutments to give additional support to the wings. The cost of rebuilding the bridge as now proposed is Rs. 550; the cost of an entirely new bridge as designed and estimated for by the French is Rs. 1,340; the saving effected by adopting the course now proposed will therefore be Rs. 790.

11. My next proposal is to place the head sluice at the site of an existing masonry work, which in the sketch and in the longitudinal section is called "old head sluice."

12. Plan of this old head sluice is shown in plan No. 2, it consists of a masonry wall 4 feet wide and 8 feet high, stepped down on either side to meet the bed at a level of 44.08.

13. It will be very easy to build up the wall, turn an arch, fit the shutters from the existing sluice to the new sluice and add front and rear wings to this latter.

14. An estimate for the adoption of this old head sluice is forwarded; it amounts to Rs. 2,200 inclusive of cost of raising and strengthening left bank of channel, constructing a right bank and of the old head sluice will therefore cost in all Rs. 2,750, while the cost of constructing the new bridge is, as already stated, Rs. 1,340.

15. The last question to be discussed is the necessity of extending the calingulah. From calculations herewith forwarded, it will be seen that 40 feet of extension is required, assuming the maximum discharge to be passed with 6 feet head, instead of 5 feet as is now the case.

16. The French plan allows an extension of 51.2 feet with 5 feet head; this, as will be seen from the calculations, is insufficient, the lengthening necessary under these circumstances being at least 103 feet, the head sluice in this case being assumed as rebuilt in its present position.

17. I submit plan and estimate for lengthening the calingulah by 40 feet, altering it from a calingulah into a weir, and providing aprons which have not been allowed by the French.

18. The cost of the French proposals is, according to this office estimates, Rs. 2,200, but as shown above the lengthening of calingulah is in this case under-calculated by 52 feet, and no apron of any sort has been allowed; the cost of the proposals now submitted is in all Rs. 3,900; the advantage claimed for them is that they ensure the safety of the channel, which the French proposals do not. Their cost is Rs. 1,700 in excess of the French proposals, but these latter do not altogether meet the requirements of the case. It is also to be noted that the cost of the French proposals according to their own estimate is Rs. 4,000, or Rs. 100 in excess of those now submitted.

19. I submit the French plans and estimates together with estimates for these works prepared according to Public Works Department rates; I also submit estimates and plans and calculations for the works proposed by me, viz.—

- (1) Altering calingulah to a weir and lengthening it 40 feet.
- (2) Raising bank between anicut and new head sluice.
- (3) Adapting old head sluice.
- (4) Demolishing and rebuilding injured portions of the Thoravi bridge.

Copy of letter No. 295 M., dated 2nd July 1893, to the Collector of South Arcot, with reference to his letter, dated 10th September 1892, No. 353.

I agree with the Executive Engineer's proposals except so far that I consider it will be much better to build an entirely new head sluice, than to patch on to an old faulty work.

The extra cost will only be Rs. 460 according to the design prepared in this office and the total cost of the improvements as now proposed Rs. 4,480.

No. 74 I.

Submitted to Government.

The amount of the estimate has been reduced in this office from Rs. 4,480 to Rs. 3,870, the reduction being due to the provision made in it for improving the Thoravi bridge being eliminated with reference to the Superintending Engineer's remark that since the estimate was framed the old bridge has been damaged and must be rebuilt by the Local Fund Board, as with a new head sluice the bridge under reference will only be required as a road bridge in future.

(Signed) R. R. E. DRAKE-BROCKMAN, Colonel, R.E.,
Chief Engineer for Irrigation.

13th April 1895.

ORDER—dated 28th May 1895, No. 439 I., Public Works.

The following estimate is sanctioned, one-third of the proposed outlay being borne by the French Government:—

Irrigation.
43. Minor Works and Navigation.
Minor Works for which neither Capital nor Revenue accounts are kept, but for which a continuous record is maintained.
South Arcot Division.
Kullar River.
Vikravandi Anicut.

Improvements and additions to the Vikravandi anicut channel, estimate. RS. 3,870

2. This sanction is registered as No. 37 I. of 1895-96.

(True Extract.)

Under Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Chief Engineer for Irrigation.
" Superintending Engineer, V Circle, with enclosures.
" Examiner, Public Works Accounts.
" Revenue Department.
" Local and Municipal Department.

Local & Municipal Dept
CURRENT No. 16202
IRRIGATION.
ACCOUNT.

Govt. of {1895} Madras.
PUBLIC WORKS.

Dated May, 28th.

Recd. 11th June 1895. Encl. 6-50

G.O., 28th May 1895, No. 439 I.

MAY.

Vikravandi Anicut Channel

Estimate of Rs. 3,870 for improvements and additions to the —, South Arcot division, sanctioned with remarks.

Handwritten notes:
Order 21/6/95 No. 1067
Recorded.
17/7/95
Copy to the Secy, Dist Bd. S. Arcot.
24/6/95

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When signed _____

READ AGAIN G.O., No. _____ DATED _____
189 ,

CURRENT No.

ENCLOSURES TO C. No.

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