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TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

Revenue

DEPARTMENT

G.O. No.	2927	Press.
B.P. No.		Mis.
Dated	25-5-1877	197

Not to be folded or roughly handled.

*Proceedings of the Madras Government, Public Works Department,
24th April 1877. No. 1,413.*

Read again the following :—

- No. 591. Proceedings, Public Works Department, dated 3rd Aug. 1876, No. 1,992.
No. 591-A. Proceedings, Public Works Department, dated 2nd Mar. 1877, No. 727.
No. 591-B. Proceedings, Public Works Department, dated 3rd Mar. 1877, No. 739.

No. 591-C. Read also the following letter from R. WOOLLEY, Esq., to the Chief Engineer and Secretary to Government, Public Works Department, dated Madras, 16th April 1877 :—

I HAVE the honor to submit the following statement for your consideration and for any orders which the Government may be pleased to pass thereon.

2. My connection with the subject (the East Coast Canal) began with my letter of the 27th March 1876, which is set forth in the Proceedings of the Madras Government, Public Works Department, of 3rd August 1876, No. 1,992.

3. In that letter I offered to "maintain" the canal for five years upon being paid "a monthly sum equivalent to one-twelfth of the average yearly expenditure of the previous five years."

4. I explained my offer to mean the "efficient maintenance" of the canal, *i.e.*, the preservation of a *workable depth* of water throughout. This was assumed to mean a workable depth of water "throughout" the year at all times and in all seasons, and to "cover a depth of 3 feet at the lowest tide level, and a bottom width of 30 feet," but my meaning was "throughout" the whole length of the canal in contradistinction to portions of it which, I had noticed, were occasionally not navigable. In other respects I meant to maintain the *statu quo* except as to the use of means which I believed, and still believe, would remove the silt more effectually than those hitherto employed. I assumed the canal to be in fair average order, and I believed, as I do now, that the expenditure was sufficient, on an average of years, to maintain it so.

5. The Proceedings of Government already referred to reached me on the 25th August last at Coonoor.

6. Gradually, during September, it became evident to me that the interpretation put upon my offer included more than I had intended, indeed more than could be expected of me, as *maintenance*; and, with the view of showing this, I offered to bear the cost of making longitudinal and cross sections of the canal, but they were not then considered necessary.

7. During the last six months several attempts have been made to reconcile what the Government wanted with what I could give, having in view the amount which it was proposed to pay me, and about a month ago every point was agreed upon except the depth to which the canal was to be dug.

8. To settle this Colonel Mullins, Colonel Farewell, and myself visited the lock on the northern branch, and Colonel Mullins decided it was necessary to fix the bottom 4.64 feet below M.S. level. I believe the junction canal is being dug to a depth of 4.5 feet below M.S. level.

9. Colonel Mullins at once ordered longitudinal and cross sections to be prepared between the Lock and the Hospital Bridge to ascertain the quality of work to be done. A Government Surveyor took the levels half-way between the furlong

stones, while mine took them at the furlong stones. Subsequently sections were ordered to be prepared of the other portions of the canal, and I undertook to continue to assist, but the Surveyor whom I employed "struck." But, if I am permitted to go on with the work, I have another in view, and I shall be happy to render the assistance promised.

10. A few days before, pending the final settlement of the proposed contract, I had been authorized to begin the work, and I made some arrangements accordingly. But it was inconvenient to proceed until the level of the canal bottom had been determined.

11. On the morning of our visit to the lock, I told Colonel Mullins that I had not availed myself of the permission to begin the work, but that I would do so if he pleased now that the bottom level had been settled. He said I might proceed, and remarked that "the worst that can happen will be that the Government will have to pay you for what you do."

12. Subsequently the work which I was authorized to do was limited to that portion of the canal between the Elephant Gate Bridge and the Lock, about 7 miles from Madras.

13. Meantime my Surveyor has plotted the sections and taken out the quantities for that portion with the following results.

14. From the lock to the crossing of the railway leading to Royapooram:—

1. 48,196 Cubic yards have to be excavated (I believe this will be found to be a little short of the actual quantity).
2. 575 cubic yards from this bridge southward to the lay-bye.
3. 4,895 cubic yards in the lay-bye.
4. 1,546 cubic yards from the lay-bye to the Basin. (I believe this quantity is also short).
5. 4,104 cubic yards in the Basin itself.
6. 336 cubic yards between the Basin and the Basin Bridge.
7. 17,170 cubic yards from the Basin Bridge to the Salt Cotaar Wooden Bridge.
8. 6,273 cubic yards between the latter Bridge and the Elephant Gate Bridge (part of this is very filthy indeed).
9. 63,690 cubic yards between the latter Bridge and the Hospital Bridge.

15. These may be summarized and rated as follows:—

Nos.	1, 2, 3, 4.	55,212 cubic yards	...	...	...	Rs.	A.	P.
"	5.	4,104	"	...	...	5,751	5	0
"	6 and 7.	17,506	"	...	...	769	8	0
"	8 and 9.	49,963	"	...	...	2,188	4	0
				...	...	15,613	7	0
						24,322	8	0 or
						8,709	1	0

For 7 miles 3 furlongs.
Or deducting 8 and 9)
For 6 miles 1 furlong.

16. Applied to the whole of the Northern Canal, the result is as follows:—

No. 1 gives 48,196 cubic yards for 5 miles	...	@ 1 8 0 =	5,020 6 8
Assuming the other portion, say 18 miles, to be no worse than these 5 miles (though I have the best authority for believing it to be worse) gives 173,505 cubic yards	...	@ 1 8 0 =	18,073 6 4
Nos. 2, 3, and 4 give 7,016 cubic yards	...	@ 1 8 0 =	730 13 4
" 5 4,104 "	...	@ 3 0 0 =	769 8 0
" 6 and 7 17,506 "	...	@ 2 0 0 =	2,188 4 0 or

For the whole ... 26,782 6 0

Besides ... 15,613 7 0

for (8 and 9) the portion which will have to be boated away.

17. The Southern Canal will most likely give this result.—

Length, 38 miles.

Bottom width, 20 feet.

Slope, 2 to 1.

Average depth of silt $1\frac{1}{2}$ feet (probably more).

Bottom 4-64 inches below M.S.L.

Thus 66,880 lineal yards $\times$ 6 $\frac{1}{2}$ yards wide $\times$ $\frac{1}{2}$ yard deep	...	...	...	23,222 0 0
= 222,936 cubic yards at 1-8-0	...	...	...	...
Slopes 2/66,880 lineal yards $\times$ 3 yards wide $\times$ $\frac{1}{2}$ yard deep	...	...	...	13,916 10 8
= 133,600 cubic yards at 1-8-0	...	...	...	37,138 10 8

18. It would no doubt be more satisfactory if the actual quantity of work to be done were available for the whole length of the canal, but the result obtained over what is known as the best portion justifies the quantities which I have assumed, and I am sure they will be found very near the mark when the actuals have been determined. But it does not seem to me to be necessary to wait for these actuals to determine—

1.—That the work to be done is out of all proportion to what can be considered maintenance, and

2.—That the canal should be put in good order before a maintenance contract can be fairly applied.

19. One word as to the rates set down above.

20. The work comprised in No. 1 has been done at 1 Anna 4 Pies per cubic yard, but it is too little, and has been tried only on the implied understanding that a little more would be given if, in my opinion, it were necessary; and, of course, it does not cover supervision or carry any profit. Hence I have set down 1 anna 8 pies, but I doubt if this will be sufficient for the work which has still to be done.

21. Two annas per cubic yard is nearer the mark, and is what has been paid for the excavation in the Ootary Nullah, where the material operated upon was of the best kind, clean, and carried only a short distance. Either, therefore, 1 anna 8 pies is a low rate for canal excavation, or 2 annas is a high rate for the work last done in

the Ootary Nullah. / But, as Major Ross Thompson has just paid this rate,* it may be supposed to be the ordinary Public Works Department rate for such work.

* Under date the 10th instant he wrote to say, in answer to my inquiry, "that 2 annas were paid for every cubic yard for excavating the Ootary Nullah."

22. I do not know what rate is being paid at the Junction Canal.

23. The three-anna rate for the basin may seem high, perhaps it is a little too high, but I am told it was paid when the basin was last worked at, and the silt in the western half has now been carried 360 feet, and that of the eastern half an average distance of 220 feet. Besides, a large quantity taken from the centre was very filthy, in a liquid state, and had accordingly to be removed twice.

24. Of course that rated at 2 Annas 17,170 cubic yards, has been, or has to be, carried an average distance of about 100 feet. Either, therefore, this rate is low for this distance, or the Ootary Nullah rate is high for the distance the earth was there carried.

25. The five-anna rate for filling the filthy stuff into boats, removing it 3 or 4 miles to the north, and there taking it out of the boat again and placing it on land to be hereafter chosen, is necessary. I am doubtful indeed if this rate be sufficient unless boats be provided.

26. But, as a broad fact, it may be safely assumed that I am not far out either as to quantities or rates, and the result is that there is required—

	RS.	A.	P.
For the Northern Canal...	26,782	6	0
For the Southern Canal...	37,138	10	8 or
A total of ...	63,921	0	8
Besides ...	15,613	7	0

for that portion, the silt of which has to be boated away.

27. Omitting this item however, and assuming that my quantities are too large (which I do not for a moment believe), it is evident that 50 or 60 and perhaps Rupees 70,000 must be spent before the canal can be made of that depth which is no doubt necessary to its efficiency.

28. I might have waited till the sections and estimates ordered by your department were produced, and in one sense it might have been more convenient if I had done so; but, being satisfied that the state of things is fairly described above and that it is of great importance that the whole canal should be put in order as soon as possible, I lose no time in informing you that I could not proceed with the proposed contract unless the Government be willing to put the canal in good order before handing it over to me to maintain it so. A portion of this year's maintenance allowance, say Rupees 10,000, might be appropriated towards the cost of this necessary preliminary work.

29. The question then arises, by what agency the canal should be brought into a proper condition? As far as I am concerned, I am prepared to do this upon any terms the Government may please, or to retire from the business altogether, although in the latter event I confess I shall be much disappointed.

30. I have not pushed on the work so far, because I could not begin at any point until sections had been taken, but it will be finished in two or three days except a portion between the Salt Cotaurs, where, until lately, no place was assigned on which to place the silt, but I have people ready to begin the whole length of both branches of the canal, and I could, I have no doubt, complete the whole by the 30th of June at latest if the cross sections were pushed on, and I were allowed to work wherever they had been taken, and no bad weather intervened.

31. If, therefore, the Government be prepared to put the canal in good order before handing it over to me under maintenance contract and wish me to do the work, I am willing to do so.

32. If, however, the Government do not wish me to proceed beyond the limits of my present permission, I should be glad to be paid for what I have done as soon as convenient.

33. And will you be good enough to let me know also if you still desire an estimate from me for the portion of the canal where the silt will have to be boated away, and, if so, upon what width you wish it to be based.

34. Possibly you may find a difficulty in disposing of the matter until you get in your own estimates, but you will observe that the Government is not asked to sanction my estimates or any particular amount of expenditure, but, under existing circumstances, to approve or disapprove of the principle of putting the canal in good order before placing its maintenance under contract, and, if this principle be approved, to determine by what agency this preliminary work shall be performed.

35. The necessity for being very careful in what I undertake in regard to the canal arises from the fact that the maintenance of the salt channels is not to be given with that of the canal. Both were included in my offer, and both, I understood, had been agreed to by the Government. But the Board of Revenue does not think any change in the present system of maintenance advisable.

No. 592.

ORDER THEREON, 24th April 1877, No. 1,413.

CIVIL WORKS, No. 48-A.

HIS GRACE the Governor in Council is not prepared to accept the terms of Mr. Woolley's tender. Further negotiation

with that gentleman will now cease in the matter of the contract for the maintenance of the canals north and south of Madras. The Superintending Engineer of Chingleput will make immediate arrangements to have the work done by Mr. Woolley on the Cochrane's Canal between the Sheddian Coopum Lock and the Elephant Gate Bridge measured in Mr. Woolley's (or his Agent's) presence and submit the bill prepared according to the rates hitherto paid by the Superintending Engineer for such work for the formal sanction of Government for payment. Until this account shall have been adjusted, no further work shall be undertaken on the portion of the canal in

*Proceedings of the Madras Government, Public Works Department,
24th April 1877. No. 1,413.*

question. The Chief Engineer will issue separate instructions to the Superintending Engineer regarding the further maintenance of the canal.

(True Extract.)

Edmond Colonel, R.E.,
Secretary to Government, P.W.D.

To the Superintending Engineer, Chingleput.
To Mr. R. Woolley.
To the Chief Engineer, Public Works Department.
„ Revenue Department.
„ Examiner of Public Works Accounts.

*all
21/5/77*

Exd. J. W. Fischer.
Spare Copies

Revenue Department
No 2625
Govt. of 1877 Madras.

PUBLIC WORKS.

THE SUPERINTENDING ENGINEER,
CHINGLEPUT.
&c. &c. &c.

Dated April 24th.

Issued

Recd. 22 May 1877 Encl.

G. O., 24th April 1877, No. 1,413.

APRIL

Nos. 591-592.

Miss 25-5-77 in 2927

Choleman's and Sadras Canals.—Mr. Woolley's contract for the maintenance of the — ordered to be ceased, and the Superintending Engineer, Chingleput, to submit for the formal sanction of Government, the bill for the work already done by Mr. Woolley.

Public Works Department.

PROCEEDINGS OF THE MADRAS GOVERNMENT. 2927

~~Under date the~~

Read the following:—

the Revenue Department (H.C. No. 1826 of 4 April 1877)
do " " 1507 " 31 " do

Order thereon 9th May 1877. No. 3911.

In continuation of L.O. No. 1413 dated 24th April 1877, the Superintending Engineer, Chingleput, will lose no time in taking in hand the systematic clearances of the canals in his district north of the Sheeladeancooram Lock, and south from the Adyar river to Sadras, taking care that the expenditure shall not exceed the average annual outlay of the last 5 years viz: Rs 21,321, after deducting the value of the work done and ordered to be measured up in the L. C. above quoted. The Superintending Engineer's attention is called to L.O. No. 402 of the 1st March 1877 and he will take steps to construct a dam at the Elephant Gate Bridge so that when water is admitted south of

of the Sheediacumam lock, the clearance
of the section between the Elephant
Gate and Hospital Bridges may be
carried out as Govt. may hereafter de-
cide. He will also take early steps
to advertise in the Port of George and
District Gazettes for tenders for main-
taining the Canals in question in a
navigable condition during the year
1878-79 and have regard to the localities
and the average amount of silting
to which experience has shown them
to be exposed, divide the Canals into
certain convenient lengths or sections
varying from 3 to 5 miles, specifying
the mile stones between which they
are situated and taking as ex. 1 section
on the Northern Canal that portion
lying between the Hospital Bridge
and the Boat Basin. The Govt. approve
of the specification for the work proposed
by the Chief Engineer and direct it to be
adopted in all tenders for contract
for

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for the Canal maintenance; and in the
clearances now to be undertaken by
the Superintending Engineer, he will be guided
by the instructions therein laid
down.

The Superintending Engineer
will, however, from the experience
gained in the maintenance of past
years, and in reference to the grant
now fixed, determine and report to
Govt. the proportionate outlay he
deems sufficient for each section,
reserving $\frac{2}{3}$ of such outlay for ex-
traordinary repairs due to excep-
tional floods, or other causes, the
cost of which has now been
included in the annual maintenance
grant.

The advertisement for tenders
should note that they will be
received up to noon of the 31st October
1877.

1877, and the Superintendents will submit
a schedule of them to Government,
stating which he recommends for
acceptance.

[True Extract]

Wm. H. Colonel.

Under Secy. to Government

P. H. D.

To the Revenue Department.

W. H. D.

Rev 1844 Dep^t

N^o 2452

Progr^s of the
Public Works Dep^t

Dated 9 May } 1844
Recd^d 10 -- }

N^o 39 W.

Dis^d 25-5-77 N^o 2927

Intimating that the Sup^rg
Engineer, Chingleput will lose no
time in taking in hand the syste-
matic clearance of the canals in
his dist^t & taking care that the
expenditure shall not exceed the
average annual outlay of the last
five years &c.

R.D.

N^o 2927

2927

Proceedings of the Madras Gov^t

Under date the 25th May 1877-

Read the following

Pro: of Gov^t P.L.D. 24 April
& 9 May 77 N^o 1413 & 39 W.
ordering Mr. Woolley's Contract
for the maintenance of the
Cochraes & Ladras Canals
to be put a stop to &c.

Communicated
to the Board of
Revenue

To the H^o of Revenue 25-5-77 with
reference to 24 April & 9 May 77
N^o 1413 & 39 W.

24/5

Go

Cochran's Sadro Canal



Ship 25-5-77 n. 2927

Ship